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ABSTRACT

In September 1973, 22 North Americans visited Scandinavia for the purpose of improving those processes that result in the admissions and academic placement of Nordic students in the educational institutions of the United States and Canada. This report describes the major findings of the United States and Canadian admissions officers and foreign student advisors and suggests quantitative matters that should be considered before important educational decisions are made. Recommendations and descriptions of the present educational situation are given for Denmark, Finland, Iceland, Norway, and Sweden. (MJM)

ED 090892

THE ADMISSION AND ACADEMIC PLACEMENT OF STUDENTS FROM NORDIC COUNTRIES

(A WORKSHOP REPORT)

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(The National Association for Foreign Student Affairs and
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THE ADMISSION AND ACADEMIC PLACEMENT OF STUDENTS FROM NORDIC COUNTRIES

(A WORKSHOP REPORT)

DENMARK
FINLAND
ICELAND
NORWAY
SWEDEN

Report Editor

Cliff Sjogren
Director of Admissions
The University of Michigan
Ann Arbor, Michigan 48104

THE JOINT COMMITTEE ON WORKSHOPS

(The National Association for Foreign Student Affairs and

The American Association of Collegiate Registrars and Admissions Officers)

PREFACE

During the middle and late nineteenth century, Scandinavians came to the United States and Canada by the hundreds of thousands. Since that period, North Americans have been richly rewarded by the Nordic influences on new world social and cultural systems. The progressive ideas of the peoples of Norway, Denmark, Iceland, Finland and Sweden have had a major impact on the development of living styles in North America.

In September 1973, 22 North Americans visited Scandinavia for the purpose of improving those processes that result in the admissions and academic placement of Nordic students in the educational institutions of the United States and Canada.

This Report describes the major findings of the United States and Canadian admissions officers and foreign student advisors and suggests qualitative and quantitative considerations that should be made before important educational decisions are made. This was the ninth in a series of workshops, most of which have been under the sponsorship of the Joint Committee on Workshops (JCOW). Earlier workshops were sponsored by the National Association for Foreign Student Affairs (NAFSA). JCOW was created in 1969 when the American Association of Collegiate Registrars and Admissions Officers (AACRAO) and the College Entrance Examination Board (CEEB) joined NAFSA in the sponsorship of the projects. Since 1965, three workshops have been held at the East-West Center in Honolulu, two in Puerto Rico, and one each in Bad Godesberg, Germany, Santo Domingo, Dominican Republic and West Africa.

The participants (*see* Appendix A) were selected from a large number of applicants. The composition of the group, which consists primarily of individuals with admissions and foreign student advising responsibilities, reflects the diversity of North American educational institutions with respect to size, location, curricula, and number of foreign students. Candidates were selected on the basis of their demonstrated commitment to international educational activities. The participants contributed to all phases of planning and programming and have assumed continued responsibilities for disseminating workshop findings among their colleagues in North America. Each participant contributed substantially to this Report.

Prior to departure, the participants were grouped into four country teams (Denmark and Iceland were combined because of the similarity of systems and size) and each member of the team was assigned specific reading and research responsibilities. This Report was actually drafted before the Workshop using available written information. After a three-day orientation in Copenhagen attended by the participants, W.A.D. Burns, the Project Director, and Cliff Sjogren, Administrative Director and Report Editor, the teams departed for a week long data gathering mission in their assigned countries. During this time they visited ministries of education offices, secondary schools, universities, trade and technical schools, and U.S. and Canadian government offices. A deliberate effort was made to associate frequently with local residents for the purpose of gaining greater insights into the forces that shape educational development in Scandinavia.

On the second weekend the entire group convened in Oslo to assemble notes and prepare presentations after which the participants traveled to a mountain conference facility, Bergsjö, where the meetings were held. Approximately one day was allowed for the presentation of each country. The proceedings were highlighted by the contributions of educators from all of the Nordic Council nations. The final Saturday, the sixteenth day of the project, the team coordinators remained in Bergsjö to plan this manuscript.

There are numerous general guidelines that should be followed by a foreign student admissions officer. Previous workshop reports have discussed these guidelines in detail and the users of this document are urged to refer to those sources before attempting to evaluate foreign student credentials. Among considerations of the process are: 1) the use of standardized examinations in decision making, 2) credentials needed, 3) English language measurements, 4) the use of a "preliminary application" form, 5) professional agencies that offer various services to admissions officers, and, 6) the issuance of the immigration form, I-20. Information on reports of the previous eight workshops may be obtained by writing NAFSA, 1860 19th Street, N.W., Washington, D.C. 20009. Those reports are listed inside of the back cover of this document.

The number of students enrolled in U.S. and Canadian universities from Finland, Sweden, Denmark, Iceland, and Norway has increased during recent years and the signs suggest that this trend will continue. Historically, the peoples of these seven great nations have had much in common and the continued encouragement of international student exchanges should help strengthen even more those positive interpersonal relationships that have evolved during the past century. Hopefully, the Scandinavian Workshop will be evaluated as a significant force in the perpetuation of that ideal.

Cliff Sjogren
Editor

ACKNOWLEDGEMENTS

The Scandinavian Workshop and this Report were made possible by the financial support and the energies of many groups and individuals. It is appropriate to initially recognize the 20 participants who were sensitive to the financial constraints and who nevertheless carried out their respective missions in a conscientious and unselfish manner. The institutions of those participants also deserve mention for their willingness to allow individuals countless hours to plan and prepare for the activity.

The two primary financial contributors of the Workshop were the ***Nordisk Kulturfond*** of the Nordic Council, an official agency created for the purpose of improving the level of cooperation between Denmark, Finland, Iceland, Norway, and Sweden in such areas as education, economics, culture, and political issues, and the United States Department of State, Bureau of Educational and Cultural Affairs. The latter agency was represented by the Office of Youth, Student, and Special Programs.

Other major financial support was received from the Ministry of Church and Education of Norway, the Ministry of Education of Denmark, the *Sverige-Amerika-Fond* of Sweden and the *Danmark-Amerika-Fond* of Denmark. From the American side additional funds were contributed by the American-Scandinavian Foundation, the College Entrance Examination Board, and the International Education Research Foundation, Inc. The Scandinavian Air Systems provided a substantial amount of logistical support.

Major administrative assistance in Scandinavia was provided by the Association of Norwegian Students Abroad (ANSA). Their assistance in fund raising efforts and their willingness to administer all of the nonprogram details of the Norwegian team visits and the Bergsjö conference were essential for the conduct of those important activities. Per Johannessen, Secretary General of ANSA, assumed the necessary liaison role between the Norwegian Ministry of Church and Education in Oslo, the Royal Norwegian Consulate General's office in New York, and the Joint Committee on Workshops (JCOW). Mr. Johannessen was ably assisted in this endeavor by his financial officer, Dagfinn Moe.

Further, recognition must be extended to the three successive Educational Attachés of the Norwegian Consulate General's New York office. Jan Høivik, Øivind Heier, and Fred H. Nomme were respectively responsible for presenting the idea and initiating the interest, for persistently providing efficient leadership during the long period of negotiations, and for lending substantial support, just prior to and during the Workshop. The contributions of Messrs. Høivik, Heier, and Nomme will long be remembered by those who have benefited from the experience.

The many other Scandinavians in each of the five countries who became involved in the Workshop are mentioned elsewhere in this Report. It must be stated, however, that their collective demonstrations of enthusiasm, encouragement, and assistance was a needed and gratefully accepted ingredient of this effort. It was particularly satisfying to observe the interest and participation of individuals at the higher levels of education and governments.

Finally, my personal appreciation is hereby extended to Diane E. Miner, the very capable editorial assistant of this Report. Errors and discrepancies in Scandinavian words and letters are the responsibilities of those of us who gathered the data. Diane Miner was assigned the colossal task of converting our symbols and notes into a usable document and she performed admirably.

Admissions officers and other educators with international educational interests should find these proceedings useful. Those of us in the United States and Canada who participated in the Workshop owe a great debt of gratitude to the individuals and agencies referred to above. We are confident that the support received will make possible educational decisions that serve the best interests of students who apply to and enter North American institutions from Norway, Sweden, Denmark, Finland, and Iceland.

C.S.

TABLE OF CONTENTS

Page

Preface ii
Acknowledgements iv
List of Appendices viii
Introduction 1

DENMARK--Map, American Team, Danish Contributors 3

I. Chart of the Danish Educational System 4

II. Background--General and Education 5
  A. General 5
  B. Education 6

III. Primary and Secondary Education 7
  A. General 7
  B. Primary 7
  C. Secondary 7

IV. Higher Education 9
  A. General Entrance Requirements 9
  B. Universities 10

V. The Grading System 14

VI. Denmark Recommendations 15

VII. Glossary of Danish Educational Terms 15

VIII. Denmark References 18

FINLAND--Map, American Team, Finnish Contributors 19

I. Chart of the Finnish Educational System 21

II. Background--General and Education 23
  A. General 23
  B. Education 24

III. Pre-University Education 24
  A. Primary and Civic School 24
  B. Secondary School 24
  C. Matriculation 26
  D. The New Comprehensive School 29
  E. The Grading System--Secondary School 32
  F. Special Characteristics 33

IV. Vocational/Technical Education 33

V. Higher Education 34
  A. University Education 34
  B. Other Institutions of Higher Education 37
  C. University-Level Grading 37

VI. Finland Recommendations 37

TABLE OF CONTENTS
(continued)

Page

FINLAND (continued)

VII. Glossary of Finnish Educational Terms 38

VIII. Finland References 40

ICELAND--Map, American Team, Icelandic Contributors 43

I. Chart of the Icelandic Educational System 44

II. Background 45

III. Primary and Secondary Education 46

A. General 46
B. Examinations and Attrition 46
C. Grading 46
D. Primary 46
E. Secondary 46

IV. Higher Education 47

A. The University of Iceland 47
B. Teacher Training 48
C. Technical College for Advanced Technological Studies 49

V. Iceland Recommendations 49

VI. Glossary of Icelandic Educational Terms 50

VII. Iceland References 51

NORWAY--Map, American Team, Norwegian Contributors 53

I. Chart of the Norwegian Educational System 56

II. Background--General and Education 57

A. General 57
B. Education 58

III. Pre-University Education 59

A. General 59
B. Pre-Elementary, Elementary, and Secondary Education 59
C. Technical and Vocational Education 64
D. Teachers Colleges 67

IV. Universities and University-Level Institutions 68

A. Universities and Professional Schools 68
B. Private Business Colleges 71
C. Regional Colleges 71

V. Grading Characteristics 72

TABLE OF CONTENTS
(continued)

Page

NORWAY (continued)

VI. Norway Recommendations . . . 74

- A. *Examen Artium* . . . 74
- B. Universities . . . 74
- C. Elementary Teacher Training . . . 74
- D. Technical Colleges . . . 74
- E. Regional Colleges . . . 74
- F. Private Schools of Business Administration . . . 75
- G. Private Technical Institute . . . 75

VII. Supportive Services Available to Norwegian Students Studying Abroad . . . 75

- A. The Association of Norwegian Students Abroad (ANSA) . . . 75
- B. The State Bank for Education . . . 75
- C. The Norway-America Association . . . 76
- D. Social Security Office for Students Abroad . . . 76

VIII. Glossary of Norwegian Educational Terms . . . 76

IX. Norway References . . . 79

SWEDEN--Map, American Team, Swedish Contributors . . . 80

I. Chart of the Swedish Educational System . . . 82

II. Background--General and Education . . . 83

- A. General . . . 83
- B. Education . . . 84

III. Primary and Secondary Education . . . 85

- A. General . . . 85
- B. Pre-University . . . 85

IV. Higher Education . . . 88

- A. Universities and University-Level Colleges . . . 88
- B. Other Institutions . . . 89
- C. University Degrees . . . 90
- D. Professional Titles . . . 91

V. Grading Characteristics . . . 91

- A. Secondary Education . . . 91
- B. Higher Education . . . 92
- C. Teacher Training Schools . . . 92
- D. Other Educational Institutions . . . 92

VI. Sweden Recommendations . . . 93

- A. Secondary School . . . 93
- B. University Transfer . . . 93
- C. Teacher Training Institutions . . . 93

VII. Glossary of Swedish Educational Terms . . . 93

VIII. Sweden References . . . 95

LIST OF APPENDICES

Page

APPENDIX

A. Workshop Staff and Participants 97

B. Country Visits 99

C. Country Days at Bergsjö 102

D. Scandinavian Students Enrolled in U.S. Institutions, 1961-72 . . . 104

INTRODUCTION

Educational planning in most of the Scandinavian countries has been undergoing dynamic changes in recent years. Some of these reforms are in the process of being implemented and others are awaiting appropriate legislation.

Participants attending the Workshop on Scandinavian Education were aware of two main influences underlying this process, namely the democratization of the educational system and the internationalization of education in a global sense. There was also evidence of the increasing role of students in the decision-making processes, e.g., in Denmark students have a very strong voice in choosing books to be used, historical subjects to be studied and they also take an active part in the selection of faculty. In Finland, we also found that the student body has an active voice in politics and they own valuable assets in the heart of Helsinki which help to support an independent stance and, presumably, provide revenue to subsidize their student services. In all countries, administrative authority is centralized in government ministries but there was evidence of trends towards decentralization in many educational matters and an emphasis on greater local or community participation. We were also impressed by the service being provided to Scandinavian students in Europe and North America by such an agency as the Association for Norwegian Students Abroad.

In all five countries, legislation has been aimed at providing for comprehensive basic school systems which are not unlike those in North America. One of the benefits of this and other legislative measures will be to provide greater opportunity for segments of the population to become involved in tertiary education.

Chancellor Hans Löwbeer in the preface to the summary of a preliminary report from the Internationalization Committee, Office of the Chancellor of Swedish Universities, February 1973, states:

> "the committee express the opinion that bringing an international dimension into all university education as well as education on other levels--is one of the measures needed to make human coexistence possible in a shrinking world. It also provides evidence that there is a growing international element in the professional work of practically all university graduates. A continuous adaptation of university education to the demands of the labour market should to a large extent involve an internationalization of education."

The proposals which result from such a global perspective are expected to be implemented when practical considerations and cooperation among the various disciplines make the internationalization objectives possible. It is likely that special international studies, together with student and faculty exchanges will be the first in the series of goals to be realized.

A significant outcome of this unique Scandinavian approach can be the influence it will have in stimulating a "common market" for education among all countries of the world.

In the ensuing pages will be found an appraisal of the current Scandinavian educational systems as seen through the eyes of visiting educators concerned with the problems of evaluation and placement of exchange students. More detailed information can be obtained by referring to the references or by contacting the authorities listed in the manuscript. In particular, the preliminary report from the Internationalization Committee, Office of the Chancellor of the Swedish Universities mentioned above is a most timely source of information.

H.A.D. Burns
Project Director

1/2

DENMARK

100 miles
Helsingør
Copenhagen

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Claire Allen, University of Houston
Simon Horness, University of Arizona (Team Coordinator)
Lillian Lemon, University of California, San Francisco
Seamus Malin, Harvard University
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B. Danish Consultant at Bergsjö:

Jorgen Reelsbro, Lecturer

C. Primary Danish Administrator:

Niels Gullberg-Hansen, Ministry of Education

D. Listed below are the individuals who contributed to or participated in various phases of the Workshop planning and programs.

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3. Others:

John Berg, Dir. of U.S. Educ. Commission
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Editor's note: Representatives of the *Nordisk Kulturfond*, Nordic Council, and their country of assignment:

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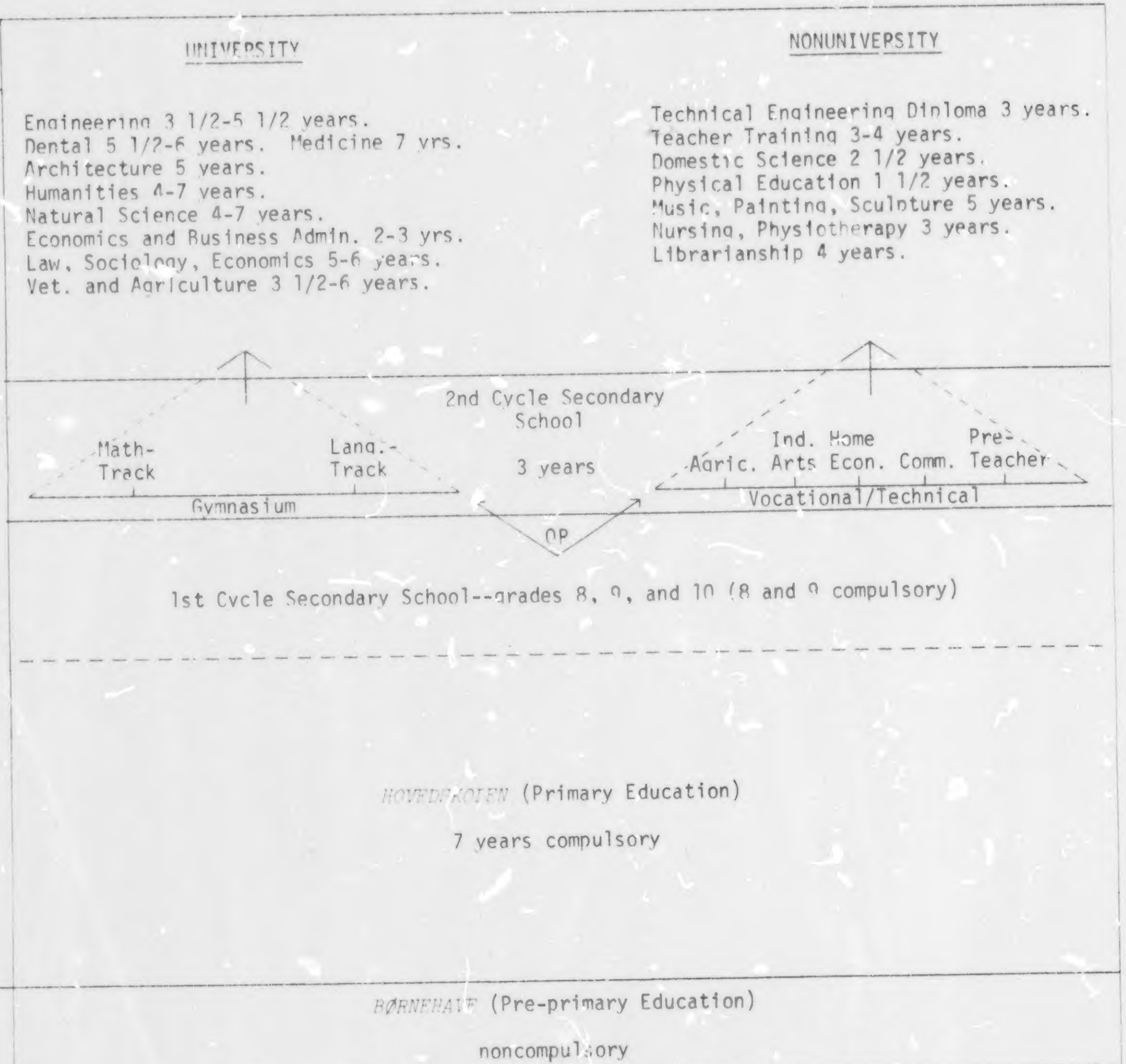
(Mr.) Kettis (Sweden)
Maganus Kull (Denmark)
Gudvin Lader Ve (Norway)
Sten-olaf Westman (Sweden)

I. CHART OF THE DANISH EDUCATIONAL SYSTEM

Age	U.S.A.	School Year (U.S.A.)	School Year (Denmark)
25	Graduate Level		19
24		19	18
23		18	17
22		17	16
21	Under-Graduate Level	16	15
20		15	14
19		14	13
18		13	12
17	Secondary School	12	11
16		11	10
15		10	9
14		9	8
13	Elementary School	8	7
12		7	6
11		6	5
10		5	4
9		4	3
8		3	2
7		2	1
6	Kindergarten	1	
5			



UNIVERSITY

Engineering 3 1/2-5 1/2 years.
Dental 5 1/2-6 years. Medicine 7 yrs.
Architecture 5 years.
Humanities 4-7 years.
Natural Science 4-7 years.
Economics and Business Admin. 2-3 yrs.
Law, Sociology, Economics 5-6 years.
Vet. and Agriculture 3 1/2-6 years.

NONUNIVERSITY

Technical Engineering Diploma 3 years.
Teacher Training 3-4 years.
Domestic Science 2 1/2 years.
Physical Education 1 1/2 years.
Music, Painting, Sculpture 5 years.
Nursing, Physiotherapy 3 years.
Librarianship 4 years.

Math-Track
Lang.-Track
Gymnasium
2nd Cycle Secondary School
3 years
OP
Agric.
Ind. Arts
Home Econ.
Comm.
Pre-Teacher
Vocational/Technical

1st Cycle Secondary School--grades 8, 9, and 10 (8 and 9 compulsory)

HOVEDSKOLEN (Primary Education)

7 years compulsory

BØRNEHAVE (Pre-primary Education)

noncompulsory

II. BACKGROUND--General and Education

A. General. Denmark is a kingdom of Northern Europe consisting of Denmark proper, the Faroe Islands and Greenland. In speaking of Denmark, however, one most commonly refers to the area which includes the peninsula of Jutland and the Islands of Zealnd (Sjaelland) and Fyn (Funen). The main body of the kingdom measures 16,619 square miles and the country is heavily maritime in its orientation. In fact, no point in Denmark is more than 33 miles from the nearest coast. The country has often been described as forming a natural bridge of land between the Scandinavian peninsula and Central Europe and it is located prominently in the direct path of the important European trade routes which link the Baltic and North Seas. On the other hand, Denmark's geographical position with regard to the Baltic has often involved it in the conflicts between nearby countries of greater political power.

The population of Denmark was estimated in 1972 at five million, a figure which represents almost three times the 1901 population. With this increase the population has shifted from 3/5 rural-based in 1901 to 1/5 in 1972. Seventy-five percent of Denmark is arable land, and although some 20 percent of the population was in farming in 1956, recent figures would indicate that the percentage is now approximately nine percent. Ethnically the population is virtually homogeneous, the only exception being the German minority in South Jutland.

The history of Denmark can be traced far back into the centuries following the introduction of bronze and iron, when trade flourished over long distances and Roman and celtic influences were pronounced. However, there is little knowledge of the social structure of the Danes before the Viking period began in the sixth century A.D. While the Norwegians settled the Atlantic islands and parts of Scotland and Ireland, and the Swedes moved through Russia to the Black Sea, the Danish Vikings overran the Frisian Coast, attacked the shores of the Mediterranean, and later in the eighth century began to make raids on England. These raids culminated in the conquest of all England (1030), and for a short period, under Canute II, the Danes held England as part of their empire. Christianity had spread into Denmark by that time and the church was quite closely aligned with the king.

Much of Denmark's growth as a powerful nation took place late in the twelfth century during the reigns of Waldemar I and his successors. In this period cities were founded, land was cleared, and many churches were built and the medieval parliamentary organization took shape. Copenhagen was, in fact, founded as a coastal fort late in the twelfth century. The Danish dominion began to spread through large areas of Northern Germany on the Baltic coast. Danish influence was further extended in 1380 when Olav V inherited the throne of Norway (and Iceland). Denmark and Norway remained united thereafter until 1814. With the death of Olav, his mother, Margaret, became Queen of Denmark and Norway, and in 1388, of Sweden. She attempted to make a union of these three kingdoms permanent, but Sweden was for many years in constant revolt against this effort and subsequent, similar efforts by her successors. The union with Sweden effectively came to an end in 1523.

Civil war and the wars with the Hanseatic League and with Sweden troubled Denmark throughout the sixteenth and seventeenth centuries. The Protestant Reformation had a tremendous impact on Denmark and for some three hundred years after it had established itself, formal membership in the Lutheran Church was required of all Danish subjects, although in fact other religious minorities were tolerated. With the Constitution of 1849 the Lutheran Church remained the State Church, but religious liberty was guaranteed. Later Acts further liberalized the role of the church in society, and in 1953, the Evangelical Lutheran Church was declared the established church and the church to which the king must belong. Despite the excesses of reformation and counter-reformation elsewhere in Europe, there was substantial domestic tranquility for the late sixteenth and early seventeenth centuries. In fact, some of the finest buildings in Copenhagen date from this period. Nevertheless, the country continued to be plagued by the growth of Swedish power, and the overriding influence of the nobility was the dominant force in the Council of the realm (*Rigsrad*). A change in this social order was brought about by Fredrick III, who after the Thirty Years War and the Danish-Swedish War (1657-60) established an absolute monarchy which lasted until 1848.

The early eighteenth century saw the colonization of Greenland, but economic difficulties at home continued, and some very strict measures were taken to deal with them--for instance, to cope with the shortage of farm labor the *Stavnsband* was established. Its order effectively bound peasant sons between the ages of four and 40 to the estate to which they were born. In the second half of the eighteenth century, however, the government began to follow a policy of enlightened reform; one effect of which was the elimination of the *Stavnsband* in 1788. More importantly, the reforms laid the foundation for the agrarian system which was developed in the nineteenth century.

The early nineteenth century saw the continuation of the Schleswig-Holstein dispute. But even as this controversy became more threatening, domestic reforms proceeded at an impressive rate. The liberals continued to exert pressure and achieve success in local government reform, freedom of the press, and better conditions for the farming peasants. Throughout the mid and late nineteenth century, the people continued to initiate social and economic changes--changes which eventually laid the foundation of modern Denmark. The world crises in agriculture in the 1880s compelled the Danes to shift from grain production to animal husbandry, especially the production of butter, bacon and eggs. The changes were accomplished, in part, by the peasants through the establishment of cooperative dairies and slaughter houses, and in fact, the economic power of the great landowners began to be rivaled by that of the organized peasants. At the same time Danish industry, shipping and commerce expanded, and the labor movement came into being.

As the twentieth century drew near Denmark continued to press the North Schleswig issue but moved more to a policy of neutrality with regard to the alliances which were being formed in Europe, although during World War I German pressure undermined that effort to some degree. For several years after the war, economic problems were acute and after a brief recovery in the late twenties, Denmark, too, faced the world-wide depression of the early thirties. Discontent with the economic situation continued; however, in the mid to late thirties, the international situation dominated public attention in Denmark with its proximity to Nazi Germany causing great concern. It was hoped that a policy of strict neutrality would safeguard the country, but on April 9, 1940, the inevitable invasion took place. Only token resistance was possible, and for the next three years Denmark was governed by a coalition which hoped that a policy of conciliation with the vastly more powerful German forces would assure the nation territorial integrity and internal independence. Eventually, however, the resistance movement grew, and outbreaks of violence became more and more common. The resistance had developed to such a point that the "Freedom Council" was organized for a final struggle with the occupation forces, but before the fight became open the Germans surrendered.

In the post-war era, Denmark abandoned its long tradition of neutrality as the "cold war" between the Soviet Union and the West intensified, and she became a member of the North Atlantic Treaty Organization in 1949. In the sixties and early seventies, Denmark has focused primarily on domestic issues. Like the rest of Scandinavia, Denmark has until recently existed outside of the realm of the European Economic Community (EEC), and in fact, this separation has had a significant effect on the basic economy, particularly because of the emphasis on agriculture. In October of 1972, however, popular support for entrance into the Common Market was voiced through a plebiscite, although many Danes still have reservations about the side effects of the Common Market membership. Denmark continues to support NATO, although many resolutions were passed by the Danish Assembly (folketing) condemning United States policy in Vietnam. While still remaining aligned with the West through NATO, the Danes have sent representatives to Peking for trade agreements, a phenomenon which once again exemplifies the Danish propensity for finding "the middle way."

B. Education. Christian missionaries were responsible for bringing formal education to Denmark. The influence can be traced back to the ninth century and in the eleventh and twelfth centuries, cathedral schools were developed at Roskilde, Viborge and Ribe. These schools in time developed into grammar schools and prepared students for the University of Copenhagen, founded in 1479, and other institutions. Elementary education in this period tended to be private. It was not until the Reformation era that elementary education became a matter of national concern. In 1522, Christian II made provisions for teaching peasant children religion and language. The Church Ordinance of 1539, designed to strengthen Lutheranism, established public elementary and secondary schools in each town and ordered the termination of private schools. Buildings and land of the Catholic Church, which had been confiscated by the state, were converted into schools, and although the schools were state controlled, they still retained their religious objective and aimed to educate officials for the state and church, which were closely related to each other. In the early seventeen hundreds the Pietist Movement from Germany also influenced Danish elementary schools toward a spiritual emphasis and an understanding of the catechism. This development provided the basis for the formation of the "Church Schools" located in Copenhagen. From these ultimately sprang Copenhagen's public school system.

The Educational Act of 1739 was the next important milestone in Danish education. With particular regard to the heretofore neglected rural areas, this Act strongly encouraged primary school attendance.

Toward the end of the eighteenth century, Denmark's first teacher training colleges were set up. Their founding was part of the far reaching educational reform carried out over a period of twenty-five years by the Grade School Committee. The Committee's efforts led to another major step in 1814, perhaps the most important year in Danish school history. This was the year that education was made compulsory for all children from seven years of age until Confirmation at about the age of 14.

While Danish elementary education underwent substantial experiment and change in the first half of the nineteenth century, the nation turned its attention to reform of the secondary schools in the second half. In particular, the basis of the current "Real Department" was laid, and at that time it was in contrast with the education offered by the Latin School. The "Real" course concerned itself more with modern languages, mathematics and the rapidly emerging sciences and was more in keeping with the needs of the increasingly influential middle class. Curriculum reforms, however, occurred in the Latin Schools, and gradually they, too, began to instruct modern languages and sciences.

A major significant development in Danish education of the mid-nineteenth century, however, was the *Folkehøjskole*. Bishop Nikolai F.S. Grundtvig and Kirsten Kold exerted a powerful influence on the development of this new school--a school which Grundtvig perceived as a residential adult institution in which young people voluntarily and informally would be exposed to an education based on the Danish language. This new concept found acceptance throughout Denmark and in neighboring Scandinavian countries as well as in the United States in the latter half of the nineteenth century. Grundtvig strongly emphasized independence in education and was keenly interested in the education derived from the interplay of the teachers' and the students' personalities and minds as opposed to the more traditional methods of instruction in the Latin School.

The year 1903 saw a major effort to unify the constituent parts of the elementary, "Real," and Latin schools into an integrated system. This development was followed quickly by the establishment of a gymnasium curriculum which ultimately diverged into the lines of math and languages. It wasn't until 1958 that a major Reform Act was passed to try to answer the criticism of previous attempts at reform, and it was this Act, in addition to the Primary School Amendment Act of 1962, which has shaped contemporary elementary and secondary education in Denmark. In addition, the 1958 Reform Act was also caused by the dissatisfaction with the wide discrepancies between educational opportunities of town children and children in rural areas. These inequalities were recognized, and the Reform Act was passed in part as an answer to the demands which had been made that rural children have access to the same instruction as their contemporaries in the towns. The Act also responded to demands by the liberal elements of the population who had been calling for the establishment of a comprehensive unstreamed school system for all children within the age group of compulsory education.

All of these reforms show clearly how committed Denmark is to education. The fact that education very early came to be regarded as a concern of the state, facilitated such changes, and of course, the highly centralized nature of the educational system has likewise made sweeping changes more feasible and manageable. It is obvious that the Danes will continue to look at their education with a critical eye, a concern for the future and a willingness to make the necessary changes when the population expresses its preferences and expectations in the important area of educating its children.

III. PRIMARY AND SECONDARY EDUCATION

A. General. In Denmark, *børnehaven* (preschools) are not regarded as an integral part of the school system and are generally omitted from the annual school reports. Nevertheless, they are a part of the overall educational system and both the public and private *børnehaven* may be eligible for at least partial support from state or local government funds; parents must contribute the balance. *Børnehaven* admit children from three to seven years of age. No regular instruction is offered. Their purpose is primarily socialization and to serve as an introduction to the primary school.

Compulsory education begins in the primary schools at age seven. Until the 1971-72 academic year, compulsory education coincided with the seven-year primary school, that is to age 14. But in 1972-73 compulsory education was extended to age 15, and in 1973-74 to age 16, that is through grade nine. Starting in 1974-75 all secondary schools must be ready to offer their pupils instruction on an optional tenth grade level. Moreover, there is a bill now pending before parliament to establish a twelve-year comprehensive school by 1980.

B. Primary. Primary education consists of a seven-year comprehensive course of education in a *hovedskole* (basic school). The curriculum of the first five years of the *hovedskole* includes Danish, arithmetic, religion, history, geography, natural sciences, music, art, crafts, and physical education. In the sixth year are added Norwegian, Swedish, social subjects, physics, hygiene, a foreign language (usually English), and home economics. In the seventh year, biology, another foreign language, elementary mathematics, crafts, and vocational guidance courses are added.

C. Secondary. After completing the primary school level, a pupil has two options on the lower secondary school level. One, which may be referred to as the "Examination Division" begins with the eighth year at the *réalskole*. The other, referred to here as the "General Division," is a more elective and vocationally oriented course of two or three years, though it offers no vocational training as such.

The Examination Division consists of a three-year course at the *réalskole*. The curriculum here emphasizes languages (English and German), mathematics, and physics. Latin and/or French are optional. In the third year a technical side may be introduced with particular reference to the mathematics and physics curriculum. At the completion of this cycle, which represents a total of ten years of study, the pupil sits for the *réaleksamen* (an examination) to earn his *bevis* (certificate). This certificate qualifies a candidate for many civil service and clerical posts. Should a pupil wish to seek entry to a university, he may, after completing only two years at the *réalskole*, take special state controlled qualifying examinations for admission to the *gymnasieskole* (upper secondary school); or, the pupil can complete the three-year program at the *réalskole* and then sit for the *réaleksamen* which would qualify him for admission to the *gymnasieskole*. About ten percent of the pupils succeed in entering the *gymnasieskole* after only two years at *réalskole*, most complete the three-year program. Passes in Danish, arithmetic, mathematics, and two foreign languages are required for admission to the upper cycle of the secondary school.

The *réaleksamen* will be abolished either in 1974 or 1975, which will eliminate this screening for admission to the *gymnasieskole*. However, there will probably be some kind of leaving certificate issued to certify completion of studies at this level and which can be used to continue studies in the gymnasium or a vocational, technical or commercial educational program.

Upper secondary education consists of a three-year program. The first year is a continuation of the basic subjects from the *réalskole*, though the pupil selects a major in mathematics or languages. The second and third years are divided into two sections, each of which is subdivided into three branches as follows: Linguistics: modern languages, social subjects, or classical languages; Mathematics: mathematics/physics, social subjects, or natural sciences.

Until about three years ago only nine percent of the pupils entered the *gymnasieskole* after the *réalskole*. The percentage has now doubled*, creating a different picture of secondary education. Because the quality of the pupils is no longer as homogeneous as before, the teachers, who until recently were concerned essentially about the knowledge of their subject, are now beginning to feel the need for training in how to teach.

After completing the *gymnasieskole* (which can represent twelve, but in most cases is a total of thirteen years of study), the student takes a state examination, the *studentereksamen*. To pass this examination, an average of 5.5 is required for all subjects; moreover, the sum of the two lowest marks and the average of the remaining marks must be at least 13.

The *studentereksamen* is partly written and partly oral. The oral examinations are given in the presence of the pupil's regular subject teacher who has a voice in determining the grade the pupil should earn on the examination. The teacher and the outside examiner try to reach a concensus on the pupil's grade. If there is a disagreement, the outside examiner's decision prevails. Written examinations are judged by two outside examiners. Grades earned can be appealed by the pupil or teacher at which point the state censor would be called upon to make a decision. Practically no pupil fails the *studentereksamen* (only about one percent of the students fail). The general explanation for this was that the pupils are so highly selected up to this point that a potential failure would have been discouraged long before he reached this point. Of course, we do not know what the effect will be of broadening the base for admission to the *gymnasieskole*.

Besides the standard schools on both the lower and upper secondary level, which are supported entirely from public funds, there are corresponding private schools, although these, too, receive 85 percent of their necessary funds from state grants. Private schools may be operated by religious, national or other special interest groups, some even experimenting with new programs or teaching methods. However, it should be noted that because the state does contribute 85 percent of the operating funds and controls the examinations taken at the end of each cycle (the *réaleksamen* and *studentereksamen*), private schools do have practical limitations. All primary and secondary education is subsidized by local and state authorities, the latter contributing the greater portion as education progresses.

For students who have not completed the normal progress for admission to a university or postsecondary education (i.e., via the *réalskole* or *gymnasieskole*), there are special courses offered which lead to a higher preparatory examination, the *Højere Forberedeleseseksamen* (*H.F.*). There are no formal entrance requirements for such courses, though candidates have to be 18 years of age at the time the examination is taken. The curriculum consists of a wide range of subjects such as Danish, foreign languages, religion, history, mathematics, physics, natural sciences, social subjects, and psychology. Depending on the purpose of the *H.F.* some of these courses may be obligatory, other optional. This examination, too, is partly written and partly oral, and the marking system identical with that of the *studentereksamen*. Passes in these examinations also provide access to teacher training colleges and higher technical schools if the subjects passed are relevant to the chosen field of study at the postsecondary level.

The General Division referred to above is the nonacademic stream followed by those who may opt for a more vocational or technical program after completion of the seven-year *hovedskole*. As noted before, there is more possibility for elective subjects in this stream, though there is a core of required subjects the pupil must follow.

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*An additional 10-12 percent now complete upper secondary education via the special courses leading toward the higher preparatory examination, explained below.

The General Division, like the *réalskole* is a three-year program, grades 8 through 10. After completing the ninth and tenth years, the pupils can take state controlled examinations to earn a leaving certificate. These examinations have no minimum passing grades, though grades are recorded, and are not subject to failure. By selecting certain subjects, the pupils can earn a "technical preparatory certificate" at the end of the ninth year and an "advanced technical certificate" at the end of the tenth year.

The following are the types of schools coming under the General Division:

Efterskoler (combination schools)--provide up to three years of supplementary education

Ungdomsskoler (youth schools) or
Ungdomskostskoler (youth boarding schools) --provide up to two years of general technical education

Husholdningsskoler (home economics schools)--private residential schools offering courses in home economics. Completion certificates vary according to level and may give access to training colleges for home economics teachers.

The following schools do not have fixed curriculums and do not issue certificates for all programs offered:

Folkehøjskoler (Folk high schools)--private residential schools where an explicit curriculum is not enforced, nor a specific certificate earned. Minimum age of 18 is required for admission.

Landbrugsskoler (agricultural schools)--private residential schools offering courses in various aspects of agriculture. Normally no examinations or certificates are given and no specific number of years of attendance are required. Minimum age of 18 is required for admission.

Fritidsundervisning (leisure time instruction)--public schools offering a variety of instruction, sometimes leading to certificates, sometimes not. Admission requirements usually based on age (18 or higher).

The following vocational schools offer certificates corresponding to the particular vocation:

Navigationskoler (nautical schools)
1/2 to 1 1/2 years of study
Prerequisite: *Hovedskole* plus age and sometimes previous service

Maskinmesterog maskinistskolerne (schools for marine engineers)
1/2 to 1 1/2 years of study
Prerequisite: technical preparatory or *réaleksamen* and sometimes previous nautical certificate

Tekniskeskoler (technical schools)
1/2 to 4 years of study
Prerequisite: technical preparatory or *réaleksamen* and sometimes certificates in special areas

Handelsskoler (commercial schools)
1 to 4 years of study
Prerequisite: variable, depending on level of course, but often only after passing state controlled entrance examination

The state also requires that municipalities make *specialundervisning* (special education) available to children who deviate mentally or physically from normal. Thus special instruction is provided for this group either in special classes or schools. Handicapped children can remain for instruction in the usual schools if their parents prefer and if the students do not require institutionalizing as a part of their treatment. Students for whom special instruction is not adequate are referred to special state schools.

In summary it should be noted that because of immense political and social pressures, secondary education in Denmark is faced with radical and sweeping changes in the very near future. Already Danish education is getting more pupil centered as well as offering broader opportunities not only to greater numbers of people but also in types of programs available. There is much more stress now on counseling activities and pupil involvement, in an attempt to plan programs adapted to individual needs and aptitudes. More important perhaps, is that the whole nation seems to be taking a critical look at its traditional system and is trying to eliminate the elitist and undemocratic aspects.

IV. HIGHER EDUCATION

A. General Entrance Requirements. Access to higher education in Denmark is gained through passing the *studentereksamen* (matriculation examination) or the *højere forberedelseseksamen* (higher preparatory examination). In the latter, examination in courses prerequisite to the field of study applied for must be passed.

In certain areas of study, primarily technical or professional, special entrance examinations, certificates, or practical experience are also required. Preparation in subjects appropriate to the field of study may be an additional prerequisite for admission.

Leaving certificates or examinations from some nonuniversity institutions of higher learning provide access to a university education in related fields of study.

Where there are more qualified applicants than can be accommodated *numerus clausus* regulations apply to the process of selecting the superior students on the basis of grades.

B. Universities. The following is a list of the universities and other institutions of higher education in Denmark.

Universities: (Listed in order of date established)	Date Established
Københavns Universitet (University of Copenhagen)	1479
Den Polyteckniske Laereanstalt, Danmarks Tekniske Højskole (Technical University of Denmark)	1829
Århus Universitet (University of Arhus)	1928
Odense Universitet (University of Odense)	1964
Roskilde Universitets-Centre (University-Centre of Roskilde)	1972
New State Universities being Established:	
Aalborg Universitets-Centre University-Centre of Aalborg	1974
Ribe-Esbjerg Universitets-Centre University-Centre of Ribe-Esbjerg	late 1970s
Other Institutions of Higher Education:	
Det Kgl. Danske Kunstakademi The Royal Danish Academy of Art	1754
Den Kgl. Veterinaer og Landbohøjskole The Royal Veterinary and Agricultural University	1858
Det Kgl. Danske Musikkonservatorium The Royal Danish Conservatoire, Copenhagen	1867
Københavns Tandlaegehøjskole Royal College of Dentistry, Copenhagen	1888
Danmarks Farmaceutiske Højskole Royal Danish School of Pharmacy	1892
Handelshøjskolen i København Copenhagen Graduate School of Economics and Business Administration	1917
Danmarks Biblioteksskole Danish School of Librarianship	1918
Det Jydske Musikkonservatorium The Jutland Conservatoire, Arhus	1929
Danmarks Laererhøjskole The Danish College of Education	1936
Handelshøjskolen i Århus Arhus School of Commercial Science	1939
Århus Tandlaegehøjskole Royal College of Dentistry, Arhus	1958
Arkitektskolen i Århus School of Architecture in Arhus	1965

All universities and institutions of higher education classified as universities are administratively responsible to the Ministry of Education. However in the areas of academic affairs and appointments each institution retains extensive authority. The *konsistorium* (governing body) is the seat of the highest academic authority at each university. It is usually composed of several of the highest university officials, heads of faculties and members of the academic staff. Some of the members of the *konsistorium* are elected by the university or Academic Council to which all faculty members belong.

The universities are made up of faculties (schools and departments). Each faculty encompasses one or more specialized fields of study or subjects.

Nonuniversity Institutions of Higher Education. Some institutions requiring for admission the *studentereksamen* or the higher preparatory examination do not have university status due to the specialized nature of their curricula. Among those included in this category are the teacher training schools, the Institute of Physical Education, the School of Librarianship and domestic science training colleges.

There are also higher educational facilities with admission requirements lower than those demanded for entrance to the universities and other higher educational institutions. Though many of the courses offered in these institutions are on a high level, the colleges and schools are not classified as universities and courses from these institutions are not transferable to universities. Colleges or schools of technology, social work, nursery school teacher training, building construction, journalistic studies, nursing, and physical and occupational therapy, and higher commercial schools fall into this category.

Numerous schools exist for commercial and industrial training. Admission requirements differ from school to school and the training period may vary in length from several weeks to several years.

Higher educational institutions, with few exceptions, are totally supported and administered. Students receive their education free. There are some private schools and colleges, especially in the field of teacher training. These are approved and heavily subsidized by the government. Financial aid to the students is available through the Student Youth Education Fund.

There are over 35,000 students now enrolled in Danish universities which represent an increase of approximately 300 percent in the last ten years. This increase can be noted in other higher educational institutions. The number of students currently attending universities and other higher institutions including teacher education and technical colleges is over 75,000.

University Degrees. The first level university degree is the *candidatus*. The number of years of study required to obtain this degree varies from four years to 7 1/2 depending on the field of study. An examination in the major subject must be passed and a dissertation presented before the *candidatus* degree may be conferred. Since 1968 the major examination has been divided into two segments, the first to be taken after two years and second after an additional two years.

The *candidatus magisterii* degree is awarded to students passing examinations in the major as well as an examination in the minor. The *examinatus artium* (minor examination) may be taken before, between or after the examinations in the major. It is possible to obtain this degree after a total of six years study at a university. A thesis in the major is also required. The holder of the degree is entitled to engage in research and advanced studies, and to teach in the gymnasium and the teacher training colleges.

Higher University Degrees. The *licientatus* may be granted to students with the title of *candidatus* after an additional two or three years of study. A thesis and/or examination may be required in some majors.

A thesis is required for the *doktorgrad* (doctorate). Ordinarily a period of 10 to 15 years of research and advanced studies precedes the award of the *doktorgrad*.

Organization of Teacher Training. The *studentereksamen* or the higher preparatory examination is prerequisite to admission in a teacher training school. After study lasting four years, the student receives a teacher training certificate which entitles the person to teach all subjects in the elementary schools and in the lower secondary schools.

Prior to 1968 the admission requirements were lower. Students passing the *réaleksamen* (tenth grade) were eligible to enroll. Those admitted with the *studentereksamen* were able to complete their studies in three years rather than the usual four years.

A teacher training certificate and two years practical experience are required for admission to the College of Educational Studies. The degree of *candidatus pedagory* or *candidatus magisterii* is awarded upon completion of the program of studies.

The Royal Danish College of Educational Studies offers three different programs.

1. Single year courses on a part-time basis for employed teachers. These do not lead to a degree.

2. A three year program, full-time, leads to the degree of *candidatus pedagory* or *candidatus magisterii*. The curriculum includes further training in all subjects taught on the primary level or courses applicable to special education, school librarianship, counseling, administration, and college teacher education.

3. Graduate studies--three programs leading to the *licientatus* degree *(lic.paed.)* and/or *doktorgrad*.

1) Psychological--educational studies
2) Pedagory (history, philosophy)
3) Professional--educational studies (pedagogy combined with indepth study of one specific subject, i.e., history, chemistry, mathematics, etc.)

A *candidatus* or *candidatus magisterii* degree from the college entitles the holder to more prestigious and higher paying jobs in the primary and lower secondary grades and in teacher training college.

The requirement for teaching in the upper secondary schools and the teacher training colleges is a *candidatus magisterii* degree from a university other than the College of Educational Studies, plus five to six months student teaching and other pedagogical training under the supervision of the Ministry of Education.

An individual with the degree of *licientatus* or *candidatus magisterii* may serve as a university instructor. Other university teachers hold the degree of *doktorgrad*.

Technical Education

1. *Teknika* (Technical Colleges). Students may enter the technical colleges upon passing an intermediate technical examination which includes testing in two foreign languages. Completion of an apprenticeship or a workshop school or practical experience is also an admission prerequisite. The course of study is completed in four years with the first devoted basic courses in mathematics, chemistry, physics and engineering. In the last three years the student concentrates on mathematics, physics and courses in his engineering specialty. On completion of the program a *teknikum ingeniør* diploma in the field of specialization is awarded.

2. *Denmarks Ingeniørakademi* (Danish Academy of Engineers). Admission to the Academy is based on passing the *studentereksamen* or the *højere forberedeleseseksamen* (higher preparatory examination) or holding a *teknikum ingeniør* diploma. The length of study is from 3 1/2 to four years including one half years of practical experience in the award of the *Akademiingeniøreksamen* (Academy Engineer diploma) with specialization in civil, chemical, mechanical or electrical engineering.

3. *Den Polylekniske Laereanstalt* (The Technical University of Denmark). Admission to

the university is based on:

a) Passing the *studentereksamen* or the *højere forberedeleseseksamen* in the mathematics/physics line plus an entrance examination. *Numerus clausus* regulations apply. A six months preparatory program of studies in mathematics and physics is also required.

b) Holding a *teknikum ingeniør* diploma plus passing an examination in biology and physiology.

c) Holding an *akademiingeniøreksamen* diploma.

For students entering with the *studentereksamen* or the *højere forberedeleseseksamen* the length of study for the *candidatus polytechnisis* is 4 1/2 to 5 1/2 years or after completing 330 points. Engineering academy graduates need 192 points or three years study for the degree. The time and points required by *teknikum* graduates for the degree is variable.

Advanced degrees are offered after two or three years of study beyond the *candidatus* degree.

Note: Six points are awarded for nine hours lecture, laboratory and homework.

TECHNICAL EDUCATION (DENMARK)

Institution	Admission Requirements	Length of Study	Degree of Diploma
Teknika (technological)	Intermediate technical examination* and apprenticeship or workshop school and practical experience	4 years (1st year--mathematics, chemistry, phys. and lang. (2nd-4th year--engineering, mathematics and physics)	*Teknikum Ingeniør*
Danmarks Ingeniør Akademi (Danish Academy of Engineers): civil, mechanical, chemical, electrical	*Studentereksamen, H.F.**** or Technical college diploma	3 1/2-4 years including 1/2 year practical experience	*Akademiingeniøreksamen*
Den Polytekniske Laereanstalt, Danmarks Tekniske Højskole (Technical University of Denmark): civil, mechanical, chemical, electrical	*Studentereksamen* or *H.F.**** plus extra courses in mathematics and physics or	4 1/2-5 1/2 years or 330 points	*Candidatus*
	akademiingeniøreksamen	3+ years or 192 points**	*Candidatus*
	Teknika	Variable	*Candidatus*

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*with two foreign languages

**six points based on nine hours lecture, lab., and homework

****Højere forberedeleseseksamen*

The University-Centre. The establishment of the university-centre is a far-reaching innovation in Danish higher education. To bridge the gap between the universities and the specialized colleges, two-year programs of study being offered are philology, social science and biology. In an approach unique in Danish higher education, studies at Roskilde are characterized as being interdisciplinary, problem oriented, related to practical life and subject to group solution. Admission is to be open not only to students satisfying the general university admission requirements but also to those with adequate technical and/or informal education. Students satisfactorily completing the two-year program may elect to continue at the university to complete degree requirements in a specific subject or seek admission to a teachers training college with the intent to obtain a teaching certificate after an additional two years study. It is expected that the university-centre will democratize the university educational system and will afford the students the opportunity for greater mobility from one field of study to another and from one institution to another.

UNIVERSITY DEGREES

University School or Department	Years	Degree	Additional Years and/or Thesis	Degree
Technology (chemical, construction, electrical or mechanical engineering)	4 1/2-5 1/2	*candidatus*	2-3	*licientatus*
Engineering (chemical, construction, electrical or mechanical)	3 1/2-4	*akademiingeniøreksamen* (engineering diploma)		
Veterinary and Agriculture (veterinary, agriculture, surveying, horticulture, forestry, dairying)	3 1/2-6	*candidatus*	3 thesis	*licientatus* *doktorgrad*
Dentistry	5 1/2-6	*candidatus*		*licientatus* *doktorgrad*
Pharmacy	5	*candidatus*	2 1/2-3 and thesis	*licientatus*
Architecture	5	*arkitekt*		
Theology	6-7	*candidatus*	thesis	*doktorgrad*
Social Science (jurisprudence, economics, political science, sociology, actuarial science, statistics)	5-6	*candidatus*	thesis	*doktorgrad*
Business and Economics (languages and business economics)	2+-3+	*candidatus*	2-3 yrs. & exam. thesis	*licientatus* *doktorgrad*
Philosophy (philology, philosophy, psychology, history, archeology, ethnography, religious history, literary history, art history)	4-7	*candidatus*	2 and examination variable and examination thesis	*candidatus magisterii* *licientatus* *doktorgrad*
Medicine	7 1/2	*candidatus*	thesis	*doktorgrad*
Mathematics and Natural Sciences (physics, chemistry, mathematics, zoology, botany, astronomy, geography, geology)	4	*candidatus*	2-3 thesis	*magister scientiarum* *doktorgrad*
Educational Studies (with teacher training and two years experience)	variable	*candidatus*	2-3 thesis	*licientatus* *doktorgrad*

HIGHER EDUCATION
(nonuniversity)

School or College	Entrance Requirements	Years	Certificate or Diploma
Technical (building construction)	building technicians certificate	2	Certificate
Technology	10 years education or *HP** or *Studentereksamen*	3	Diploma (engineers)
Teacher Training	*HP** or *Studentereksamen*	3-4 1/2	Teacher's Cert.
Domestic Science	*Studentereksamen*	2 1/2	Certificate
Physical Education	*Studentereksamen* or primary teacher's certificate	1-2	Certificate
Business and Economics (foreign languages, correspondents, general business, business economics)	*Studentereksamen* or 10th form *Folke* examination or higher commercial examination	2+	Diploma or Cert.
Fine Arts:			
Painting and Sculpture	demonstrated ability	5	None
Music	entrance examination	5	Certificate
Librarianship	*Studentereksamen* or equivalent	4	Certificate
Social Work	Age 21-35	3	Certificate
Nursing	5 months pre-courses and one year practical hospital experience	3	Certificate
Physical or Occupational Therapy	*Studentereksamen* or *Réaleksamen* plus some practical experience	3	Certificate

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**HP = Højere forberedeleseseksamen*

V. THE GRADING SYSTEM

Secondary Education. After seven years of elementary education students who wish to continue their education proceed to a three-year "Real" school (equivalent to the lower division of the secondary). Following three years in the "Real" school students are given a final examination (*réaleksamen*) which is to be deleted in 1975. Qualified students proceed to the three-year gymnasium. Outstanding students may be admitted to the gymnasium following the completion of two years in the "Real" school.

The gymnasium which is attended by only 15 percent of student age groups, offers a choice of two lines of study.

a. Language--the main subjects being (1) Danish, (2) English and German are offered at a high level, (3) English, German, French or Russian history, and (4) natural sciences.

b. Mathematics--the main areas of study include (1) Danish, (2) physics, chemistry and mathematics at a higher level, (3) English, French, German or Russian history, and (4) natural science.

During the second and third years of the gymnasium pupils may choose to specialize in one of the following branches, (1) English, German, (2) Latin, Greek, (3) social subjects, (4) mathematics, physics, (5) biology, biochemistry, or (6) music.

At the completion of the three-year gymnasium the student must pass a final examination, the *studentereksamen*, if he desires to be admitted to the university or apply to other institutions of higher education.

If the student passes the examinations he receives a certificate (*studentereksamensbevis*) which contains an evaluation of his proficiency in every subject.

The grading system which is uniform for all levels of education, is based on a scale of values, scores will range from 0 to 13. It is suggested that the following scale be used when evaluating assigned scores:

13	Superior
11	Excellent
10	Very Good
9	Good
8	Average Mark
7	Fairly Good
6	Acceptable
5	Poor
3	Unsatisfactory
0	Unacceptable

Students are assigned two grades, the *arskarakterer* (class grades) and the *eksamenskarakterer* (final examination grades). The class grades are given by the respective teacher and are based on the student's performance throughout the year, while the latter is based on a final examination administered by outside examiners. To pass the *studentereksamen* an average of 5.5 is required, additionally the total of the two lowest scores plus the average value of all other scores must be at least 13 in each of the two series of grades. The *studentereksamensbevis* provides admission to further studies at Danish universities and some other institutions of higher education.

In 1966 the *HF-Eksamen* (higher preparatory examination) was introduced into the education system. Since 1966 the *HF-Eksamen* has provided entrance capabilities to many people; not only to colleges of education but also to the universities. The courses preparing for this degree are open not only to the graduates of the lower secondary school, but also to applicants with sufficient experience from practical life. Candidates must be 18 years of age to take the examination. The grading system for the *HF-Eksamen* is the same as for the gymnasium.

VI. DENMARK RECOMMENDATIONS

1. Students who have completed the gymnasium and passed the *studentereksamen* should be considered for admission and generally be awarded one year of advanced credit.
2. Students with the *H.F.* certificate should be considered for freshman admission; advanced credit should be granted on basis of validating examinations.
3. Students transferring from an institution of higher education should be considered for credit on a course by course basis for work completed at that institution in addition to credit recommended for a passing score on the *studentereksamen*.
4. Students completing credit at a *teknikum* who apply to an institution in North America offering the vocational/technical program desired by the student should be considered for credit on a course by course basis.
5. Students who have completed the *Cand. Phil.* generally should be considered as having a degree similar to a Master's degree.
6. Students who have completed the *Cand. Mag.* generally should be considered as having a degree similar to a Master's degree in the major subject and similar to a Bachelor's degree in the minor subject.
7. Students who have obtained a diploma from the Engineering Academy should be considered for admission and advanced credit on a course by course basis.
8. Students who have obtained the *Cand.* degree from the Polyteknisk Laereanstalt should generally be considered to have a degree similar to a Master's degree.
9. Students who have completed the *Cand. Paed.* should generally be considered as having a degree similar to a Bachelor's degree.

VII. GLOSSARY OF DANISH EDUCATIONAL TERMS

Adgangeseksamen--Entrance examination

Adjunkt--Secondary school teacher

Aftenhøjskole--Evening college

Aftenskole--Evening school

Akademiingeniøreksamen--Engineering academy diploma

Almindeligt seminarium--Teacher training school

Arskarakterer--class grades

Bevis--Certificate

Biblioteksskole--School of librarianship

Bifagseksamen--Minor subject examination

Børnehave--Kindergarten

Børnehaveseminarium--Teacher training school for kindergarten

Brevskole--Correspondence school

Candidatus--University degree (first level)

Candidatus-Magisterii--University degree (higher level)

Candidatus-Scientiarum--University degree (higher level)

Censor--Examiner from another school

Danmarks Højskole for Legemsovelser--Denmark's College of Physical Education

Danmarks Laererhøjskole--Denmark's College of Education

Danmarks Paedagogiske Institut--Denmark's Institute of Educational Research

Dekaner--Faculty or department

Doktorgrad--doctorate

Efterskole--Private continuation school

Eksamensfri mellemskole--A middle school which does not culminate in a final examination to further study

Eksamenskarakterer--Final examination grade

Embedseksamen--Final examination for university degree (major and minor subject) leading to *candidatus* degree

Enhedskole--Seven-year, unified school

Examinatus artium--Minor subject examination

Fagskole--Vocational school

Filosofikum--Required examination in philosophy at the end of the first university year

Folkehøjskole--Folk high school or college

Folkeskole--Municipal primary school

Folketing--Legislature

Folkeuniversitet--University extension

Forskole--Lower rural primary school

Forsøgskole--Experimental school

Friskole--Private primary school

Fritidsundervisning--Leisure time instruction

Grundskole--Lower town primary school (7-11)

Gymnasieskole--Second cycle secondary school

Handelsgymnasium--Higher commercial secondary school

Handelshøjskole--College of commerce

Handelsskole--Lower commercial secondary school

Højere almenskole--Secondary school

Højere forberedelseseksamen--Higher preparatory examination (also, *HF-Eksamen*)

Højere handelsskole--Higher secondary school of commerce

Hovedfagseksamen--Major subject examination

Hovedskole--Upper primary school (11-14 or 11-15)

Husholdningsskole--School of home economics

Ingeniørakademi--Engineering academy

Kandidateksamen--Examination for a university degree

Kommunale skolevaesen--Local school system

Konsistorium--Governing body

Laegevidenskab--Faculty of medicine

Laererhøjskole--Teacher's college

Laererseminarier--Teacher training college

Laeseplan--Curriculum

Landbohøjskole--College of agriculture

Landbrugsskole--Agricultural college

Lektor--Examiner in oral examinations

Magister artium--Examination in a minor subject for the *candidatus magisterii* degree

Magisterkonferens--Final examination in one subject leading to the degrees

Maskinmesterog maskinistskolerne--Schools for marine engineers

Mellemskole--Middle school for pupils 11 to 15 years old

Mellemskoleeksamen--Middle school examination

Navingationskoler--Nautical schools

Numerus clausus--Regulations governing restricted admission

Paedagogikum--A test in education for prospective teachers in secondary school

Paedagogiske Institut--Institute for Educational Research

Polyteknisk Laereanstalt, Danmarks Tekniske Højskole--Technical University of Denmark

Ratsvidenskab--Department of jurisprudence

Realafdelingen--A three-year lower secondary department (grades 8 through 10) leading to the gymnasium

Realeksamen--An examination which admits pupils to further education in various institutions of learning

Realskole--Three-year lower secondary

Samfundsvidenskabelight omrade--Department of social science

Skoleembedseksamen--Professional teacher's examination

Skoleinspektør--Head teacher of a city school

Skolekommissionen--Local school committee appointed by the communal authority

Skolekreds--Board of governors of a private school

Smabørnslaererindeseminarium--Teacher-training school for teachers in lower rural primary schools

Specialundervishing--Special education

Stadsskoleinspektør--Municipal superintendent of schools

Statens Paedagogiske Studiesamling--State Library of Pedagogies and Child Psychology

Statsseminarium--State teacher-training school

Statsskole--State school

Statsvidenskab--Department of economics and political science

Studentereksamen--Second cycle secondary school leaving examination (qualification for university admission--*see* also *højere forberedeleseseksamen*)

Sygeplejeuddanelse--Nursing education

Tandlaegehøjskole--Dental college

Teknikum--Secondary technical school

Teknisskole--Trade school

Tjenestemaend--Primary school teacher ("public or civil servant")

Undervisningsministeriet--Ministry of Education

Ungdomskole--School for unskilled young workers (14-18)

Ungdomskostskoler--Youth boarding schools

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FINLAND

126 statute miles
Jyväskylä
Helsinki

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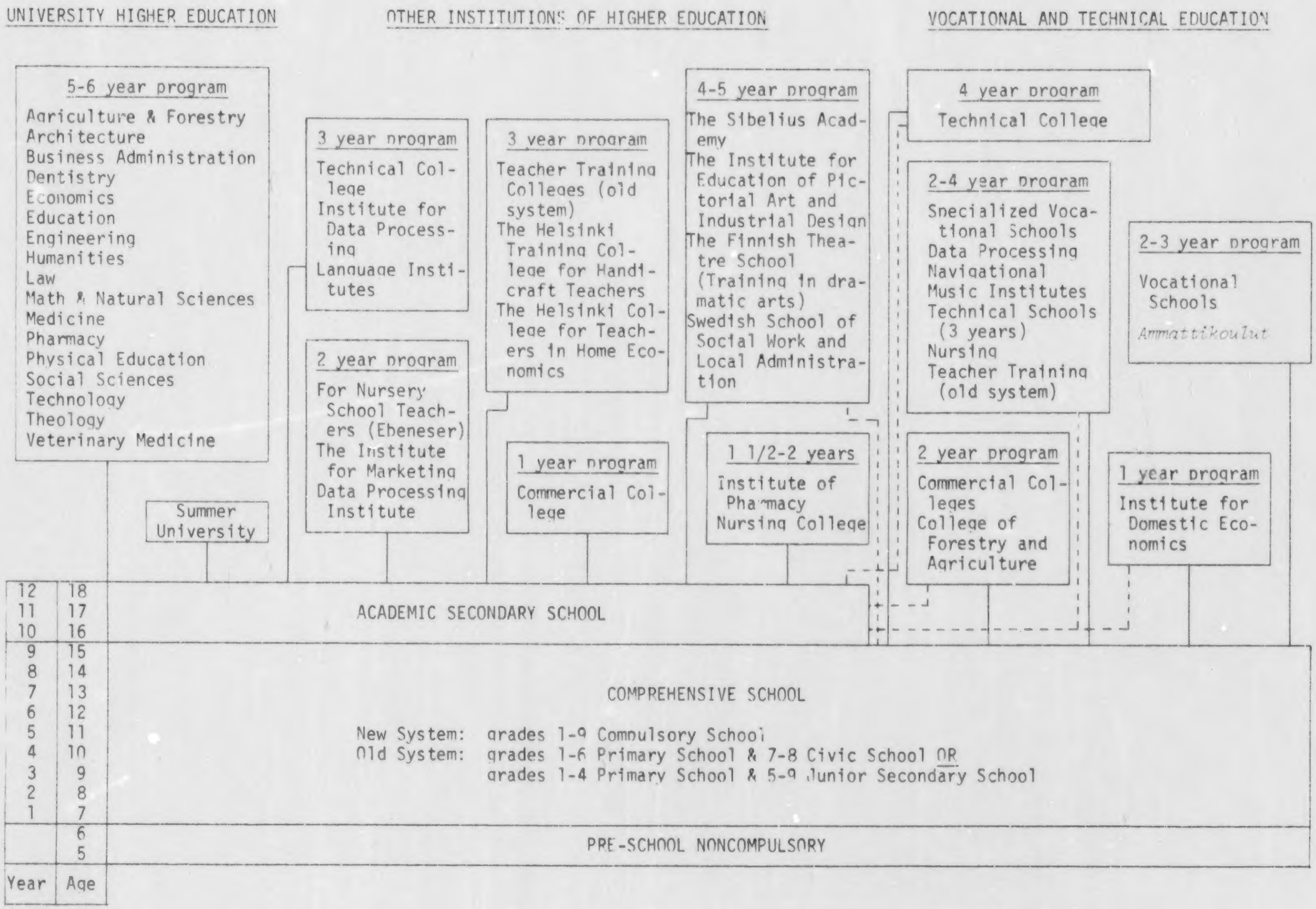
I. CHART OF THE FINNISH EDUCATIONAL SYSTEM


UNIVERSITY HIGHER EDUCATION
OTHER INSTITUTIONS OF HIGHER EDUCATION
VOCATIONAL AND TECHNICAL EDUCATION
5-6 year program
Agriculture & Forestry
Architecture
Business Administration
Dentistry
Economics
Education
Engineering
Humanities
Law
Math & Natural Sciences
Medicine
Pharmacy
Physical Education
Social Sciences
Technology
Theology
Veterinary Medicine
Summer University
3 year program
Technical College
Institute for Data Processing
Language Institutes
2 year program
For Nursery School Teachers (Ebeneser)
The Institute for Marketing
Data Processing Institute
3 year program
Teacher Training Colleges (old system)
The Helsinki Training College for Handicraft Teachers
The Helsinki College for Teachers in Home Economics
1 year program
Commercial College
4-5 year program
The Sibelius Academy
The Institute for Education of Pictorial Art and Industrial Design
The Finnish Theatre School (Training in dramatic arts)
Swedish School of Social Work and Local Administration
1 1/2-2 years
Institute of Pharmacy
Nursing College
4 year program
Technical College
2-4 year program
Specialized Vocational Schools
Data Processing
Navigational
Music Institutes
Technical Schools (3 years)
Nursing
Teacher Training (old system)
2 year program
Commercial Colleges
College of Forestry and Agriculture
2-3 year program
Vocational Schools
Ammattikoulut
1 year program
Institute for Domestic Economics
ACADEMIC SECONDARY SCHOOL
COMPREHENSIVE SCHOOL
New System: grades 1-9 Compulsory School
Old System: grades 1-6 Primary School & 7-8 Civic School OR
grades 1-4 Primary School & 5-9 Junior Secondary School
PRE-SCHOOL NONCOMPULSORY
Year
Age
12 18
11 17
10 16
9 15
8 14
7 13
6 12
5 11
4 10
3 9
2 8
1 7
6
5

II. BACKGROUND--General and Education

A. General. Finland covers an area of 209,000 square miles and as of January 1, 1973, had a population of 4,630,000, of which 51 percent lived in the urban areas. The population is concentrated in the south and southwest part of the country. Huge stretches of Lapland and the eastern border of Finland are almost uninhabited.

Although Finland suffered greatly from the wars of 1918, 1939, and 1941-45, the standard of living in Finland is among the highest in the world. Because of the wars, Finland lost 2.3 percent of her population, paid war debts to the value of almost one thousand million dollars in terms of 1944 values, and ceded nearly 15,500 square miles of valuable land to the Soviet Union. Women suffrage was passed in 1906, the first nation in Europe to extend voting rights to women.

Finland became independent in 1917 and has kept her 1919 constitution unchanged. It is a parliamentary republic with executive powers in the hands of a president. The president is assisted by a Council of Ministers nominated by the president and approved by the parliament. Legislative power is held by a single chamber of parliament consisting of 200 members elected every four years under a system of direct universal suffrage combined with proportional representation. The activities of both government agencies and the president are controlled from a legal point of view, by a *Oikeuskansleri* (Chancellor of Justice). There is a considerable degree of regional autonomy facilitating the work of the ministries and government. Local government units are called communes and the Finnish constitution safeguards the principle of autonomy for the communes.

The position of the Evangelical Lutheran Church as the state church is a strong one. Ninety-three percent of the population of Finland belong to it. One percent of the taxable income of every tax payer who is a member of the Church goes straight to the Church. Six percent of the population belong to the Greek Orthodox Church, and it has the same relationship to the state as the Lutheran Church. Instruction in the Christian religion is compulsory for every child belonging to one or the other of these churches.

The first proposals for organizing general primary education in Finland were made in 1683 by Bishop Gezelius in a work called *Methodus Informandi*. The first effect of the work was the religious law of 1686 that declared it to be the duty of every citizen to learn to read. A Finn who could not read was not allowed to make his first communion or get married--as was expected the number of illiterates in Finland decreased sharply.

The aim of Finnish education is to ensure that all individuals receive an education that corresponds to their aptitude and ability. According to the general principles of education in Finland, the primary school must provide the citizens with the necessary basic education. The primary school must inculcate moral principles in its pupils and impart to them the theoretical and practical knowledge which they will need in their daily life. The purpose of the primary school is also to encourage postschool education as well as the cultural interest of young people.

The aim of the secondary school is to develop the pupil into an independent, judicious, and socially aware individual who is versatile, balanced, and intellectually receptive.

Depending on their specific character, the schools which provide vocational training have their own special aims and tasks. The purpose of the technical vocational schools is to train technicians for tasks of a level which involves amongst other things, organization of work and foremanship, providing the students, on the basis of more extensive general knowledge, with the practical training and skills necessary for techno-economic fields.

Education in Finland is complicated by the existence of two national languages. Ninety-three percent of the population speak Finnish and seven percent speak Swedish. In regard to education, the interests of the Swedish-speaking minority are guaranteed in the same way as are those of the Finnish-speaking majority. There are also a few foreign-language schools which receive state aid upon fulfillment of certain conditions even though they are subsidized by foreign countries (the French, English, German, Russian, Turkish, and Hebrew schools). All of the schools in Finland are under the control of the Finnish State.

Under the constitution, compulsory education is made available to every child in his own language in the bilingual communes. A commune is considered bilingual if it has a linguistic minority of more than eight percent.

The Swedish-speaking population is concentrated entirely along a narrow coastal strip in the south, southwest, and west of Finland.

Because education in Finland is compulsory, it is provided for the primary schools and the basic school free of charge to everyone. The pupils of the secondary school must defray the cost of their school equipment, school meals, and the transportation to school. They are also required to pay a modest tuition fee for each term. If a student lacks the means to pay this fee, he may be given so-called "free places" in the secondary schools. In Finland, the boys and girls have the same opportunity and right to education. Co-education is practically universal.

In 1963 the Finnish parliament approved a motion calling on the government to take immediate measures to remodel the primary school system on a comprehensive school basis. In 1967, the government introduced a bill which established the framework of a new basic school of the comprehensive type. "The long-range aim of the new basic school is to produce civilized men and women, characterized by qualities which enable them to embrace and assimilate the global, spiritual, and cultural heritage of mankind, to cooperate with their fellow men and women, and to develop independence of thought and powers of judgment."* It was proposed that the basic school should be adopted throughout the country by 1982. This school will be free of charge and compulsory. It will provide the education which up to now has been given in the primary schools and the first stage of the secondary schools.

The body ultimately responsible for administering education in Finland for nearly a century has been the *Kouluhallitus* (National Board of Schools) which is responsible to the Ministry of Education. The Board's task is the management and practical supervision of the primary and the secondary schools, teacher training colleges, people's educational institutions, and libraries.

The universities in Finland which are both state owned and state subsidized all come directly under the Ministry of Education, but this does not deny them a considerable degree of autonomy and many privileges.

Professional education is administered by several different ministries. Education for agriculture and forestry is under the Ministry of Agriculture; the School for Military Services is under the Ministry of Defense; the School for Protection of Health Services is under the Ministry of the Interior; the School for Railway and Postal Services is under the Ministry of Communications and Work; and the Schools for Social Service are under the Ministry of Social Affairs.

The national budget of Finland for 1973 is 14.97 billion Finnish marks. The education-culture budget is the largest single budget appropriation--larger than the budget for social welfare or health services. The largest single budget increase in the total budget for 1974 is the education and culture budget. In this budget 48 percent is designated for primary-secondary and adult education, 24 percent for vocational education, 16 percent for universities, 12 percent for cultural projects, study grants, scientific research, etc. It is worth noting that the Finnish team members found the individuals, both men and women, who we associated with in the Ministry of Education and in the National Board of Schools were highly committed to education. We commented many times on the fact that they were young, intelligent, highly motivated individuals. We left Finland encouraged that this caliber of person is responsible for the administration and implementation of the educational philosophy and system in Finland today.

B. Education. The Finnish school system today finds itself at the half-way point between an old and a new educational system (*see* Table I). The need of a thorough reform and reorganization is derived from the rapid social and technological development characteristic of Finland today. The structural changes and a rising standard of living have resulted in an educational explosion, particularly in secondary and higher education. Approximately 65 percent of the age group of 18 year old people are studying in schools of the upper secondary level, either of the general or the vocational type. By the same token, the number of university students has increased from 15,000 in 1950 to 60,000 today.

III. PRE-UNIVERSITY EDUCATION

A. Primary and Civic School. Compulsory education in Finland requires eight years of full-time schooling, beginning at the age of seven. This requirement can be fulfilled in the primary school, which is comprised of two cycles: the *kansakoulu* (primary school proper) with six classes and the *kansalaiskoulu* (civic school) with two or three classes. The *kansakoulu* is a municipal, state-subsidized institution, which offers all children between seven and sixteen a basic education without costs to parents, free textbooks and other school supplies, a daily school meal, as well as transportation or accommodation when needed. This school is run by the local school board and supervised by regional and central school authorities. The subjects to be taught however, are stipulated by legislation. It is the duty of the local school board to draw up the curriculum within this framework.

In the *kansakoulu*, the lower section, most instruction is given by classroom teachers with general academic backgrounds whereas in the *kansalaiskoulu* all teachers are specialized subject teachers. No structural differentiation takes place in the lower cycle, but the *kansalaiskoulu* is divided into lines. There are technical, commercial, agricultural, and other lines according to local needs and resources. In *kansalaiskoulu*, along with further general education, vocational pre-orientation is given. Workshop training for students is an essential feature of the curriculum.

B. Secondary School. At present no more than 40 percent of the children complete the *kansakoulu* course. A steadily increasing number of 11 year old pupils (35 percent in 1958 and

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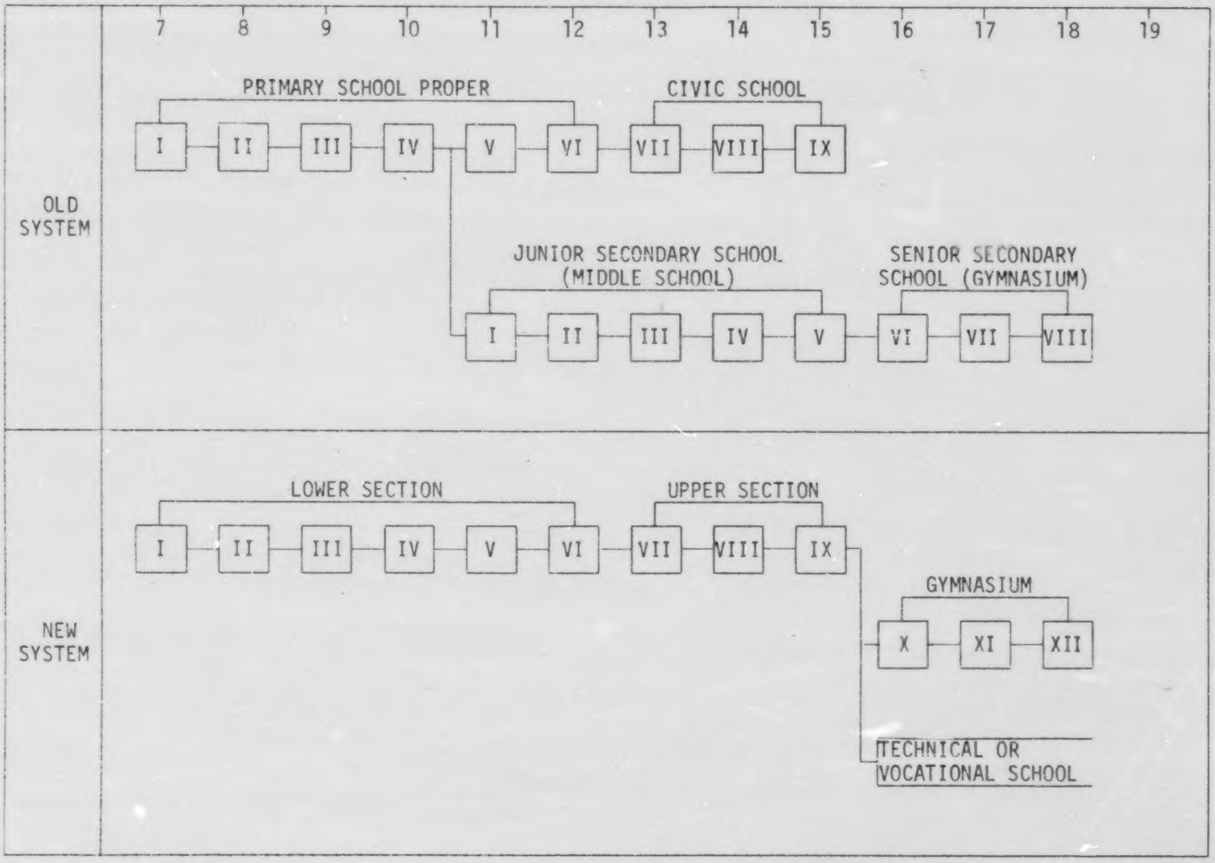
*Council for Cultural Cooperation of the Council of Europe--Education in Europe.

TABLE I. THE OLD AND THE NEW FINNISH EDUCATIONAL SYSTEMS
(In 1973 about half of the elementary and secondary schools
were on each system.)


7
8
9
10
11
12
13
14
15
16
17
18
19
OLD SYSTEM
PRIMARY SCHOOL PROPER
CIVIC SCHOOL
I
II
III
IV
V
VI
VII
VIII
IX
JUNIOR SECONDARY SCHOOL (MIDDLE SCHOOL)
SENIOR SECONDARY SCHOOL (GYMNASIUM)
I
II
III
IV
V
VI
VII
VIII
NEW SYSTEM
LOWER SECTION
UPPER SECTION
I
II
III
IV
V
VI
VII
VIII
IX
GYMNASIUM
X
XI
XII
TECHNICAL OR VOCATIONAL SCHOOL

64 percent in 1971) leave the *kansakoulu* after four years, and move to the *oppikoulu* (secondary schools) in spite of the fact that their parents have to pay for this type of schooling. However, the parents are well aware of the fact that the *oppikoulu* are the only channel to higher education and to better-paying occupations. Access to secondary education then is to some degree dependent on social factors, particularly in the distantly located areas.

The *oppikoulu* consists of a five-grade lower section, the *keskikoulu* (middle school), and an upper section with three classes, known as *lukio* (gymnasium). Administratively, the secondary schools fall into three categories:

1. state secondary school
2. private, state-subsidized secondary schools
3. communal middle schools

Only the communal middle schools offer the same social benefits as the primary school. Upon completion of the *lukio* (gymnasium), pupils sit for a centrally organized *ylioppilastutkinto* (final examination), which consists of four compulsory written tests. In addition, one or two optional tests may be taken. The *päästötodistus* (secondary school leaving certificate) and the *ylioppilastutkintotodistus* (final examination certificate) are basic requirements for studies at the university level.

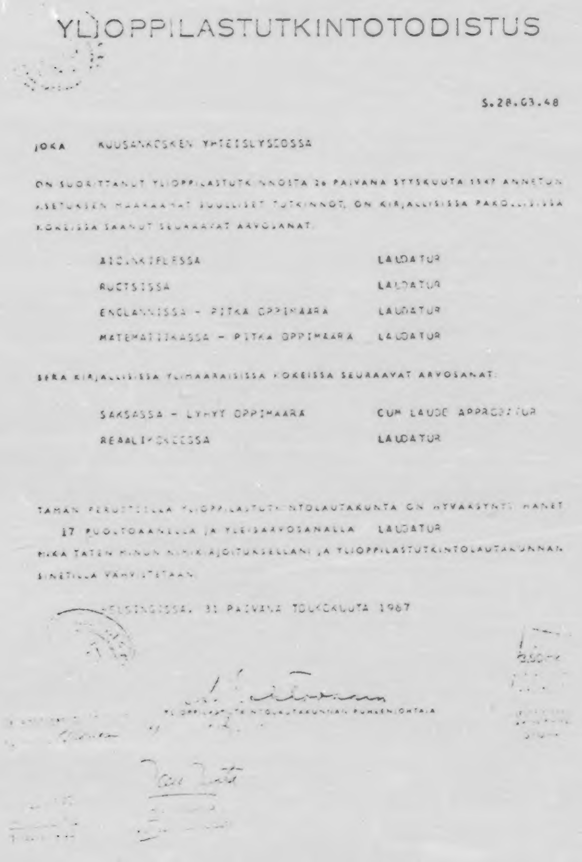
Drawbacks of the Present Educational System. The functional structure of the present educational system contains the following elements which are in conflict with the goals set forth by the present educational system of secondary education.

Young people in late adolescence are divided into three groups on the basis of the general education they have received: those who have completed primary school, those who have completed lower secondary school, and those who have completed their upper secondary education. This division affects vocational training in that those with a primary school background can only compete for vocational training leading to practical skills, whereas those who have passed the *ylioppilastutkinto* (matriculation examination) are qualified to compete for any form of further education.

Time-consuming complementary general studies are necessary in practice for advancement in virtually all careers. As the individual's vocational training determines his position in the employment hierarchy, it is in fact on the length and level of his general education that his status in the working community depends in the first place, and only secondarily on his vocational training and ability he has displayed at work. Thus, under the present system, young people are forced to choose first the level of their employment and social status, and then their actual career. This structure resembles that of a class society, the only difference being that general education has taken the place of birth as the factor determining social status.

C. Matriculation. Matriculation consists of two certificates: a certificate awarded by the Matriculation Examination Board (exclusive of the National Board of Schools), and the *ylioppilastutkintotodistus* (secondary school leaving certificate), issued by the school. However, after five years the *keskikoulun päästötodistus* (intermediate school certificate) is obtained and many pupils leave the school. This intermediate school leaving certificate should not be confused with the certificate received upon completion of the *oppikoulun päästötodistus* (upper level certificate).

YLIOPPILASTUTKINTOTODISTUS (MATRICULATION CERTIFICATE)



YLIOPPILASTUTKINTOTODISTUS

S.28.03.48

JOKA KUUSANKOSKEN YHTEISLYSEOSSA

ON SUORITTANUT YLIOPPILASTUTKINNOSTA 26 PAIVANA SYYSKUUTA 1947 ANNETUN ASETUKSEN MAARAAMAT SUULLISET TUTKINNOT, ON KIRJALLISISSA PAKOLLISISSA KOKEISSA SAANUT SEURAAVAT ARVOSANAT.

AIDINKIELESSA	LAUDATUR
RUOTSISSA	LAUDATUR
ENGLANNISSA - PITKA OPPIMAARA	LAUDATUR
MATEMATIIKASSA - PITKA OPPIMAARA	LAUDATUR

SEKA KIRJALLISISSA YLIMAARAISISSA KOKEISSA SEURAAVAT ARVOSANAT.

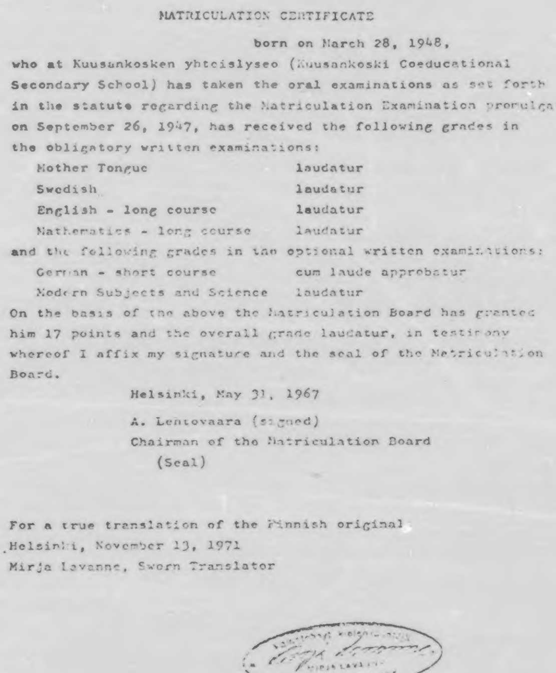
SAKSASSA - LYHYT OPPIMAARA	CUM LAUDE APPROBATUR
REAALIKOKEESSA	LAUDATUR

TAMAN PERUSTEELLA YLIOPPILASTUTKINTOLAUTAKUNTA ON HYVAKSYNYT HANET 17 PUOLTOAANELLA JA YLEISARVOSANALLA LAUDATUR
MIKA TATEN MINUN NIMIKIRJOITUKSELLANI JA YLIOPPILASTUTKINTOLAUTAKUNNAN SINETILLA VAHVISTETAAN.

HELSINGISSA, 31 PAIVANA TOUKOKUUTA 1967

YLIOPPILASTUTKINTOLAUTAKUNNAN PUHEENJOHTAJA

Copy of Original Document



MATRICULATION CERTIFICATE

born on March 28, 1948,
who at Kuusankosken yhteislyseo (Kuusankoski Coeducational Secondary School) has taken the oral examinations as set forth in the statute regarding the Matriculation Examination promulgated on September 26, 1947, has received the following grades in the obligatory written examinations:

Mother Tongue	laudatur
Swedish	laudatur
English - long course	laudatur
Mathematics - long course	laudatur

and the following grades in the optional written examinations:

German - short course	cum laude approbatur
Modern Subjects and Science	laudatur

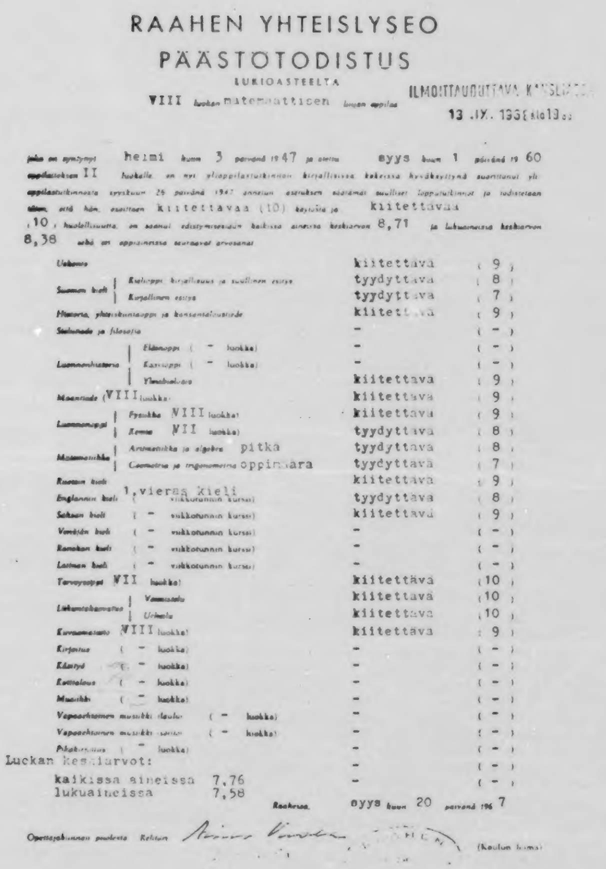
On the basis of the above the Matriculation Board has granted him 17 points and the overall grade laudatur, in testimony whereof I affix my signature and the seal of the Matriculation Board.

Helsinki, May 31, 1967
A. Lehtovaara (signed)
Chairman of the Matriculation Board
(Seal)

For a true translation of the Finnish original
Helsinki, November 13, 1971
Mirja Lavanne, Sworn Translator

Copy of English Translation

PAASTOTODISTUS (FINAL CERTIFICATE FROM THE SECONDARY SCHOOL LEVEL)



RAAHEN YHTEISLYSEO
PÄÄSTÖTODISTUS
LUKIOASTEELTA

VIII luokan matemaattisen linjan oppilas

ILMOITTAUDUTTAVA K[illegible]
13 .IX. [illegible] klo 10

joka on syntynyt helmi kuun 3 päivänä 19 47 ja otettu syys kuun 1 päivänä 19 60 oppilaitoksen II luokalle, on nyt ylioppilastutkinnon kirjallisissa kokeissa hyväksyttynä suorittanut ylioppilastutkinnosta syyskuun 26 päivänä 1947 annetun asetuksen säätämät suulliset loppututkinnot ja todistetaan täten, että hän, osoittaen kiitettävää (10) käytöstä ja kiitettävää (10) huolellisuutta, on saanut edistymisestään kaikissa aineissa keskiarvon 8,71 ja lukuaineissa keskiarvon 8,38 sekä on oppiaineissa seuraavat arvosanat

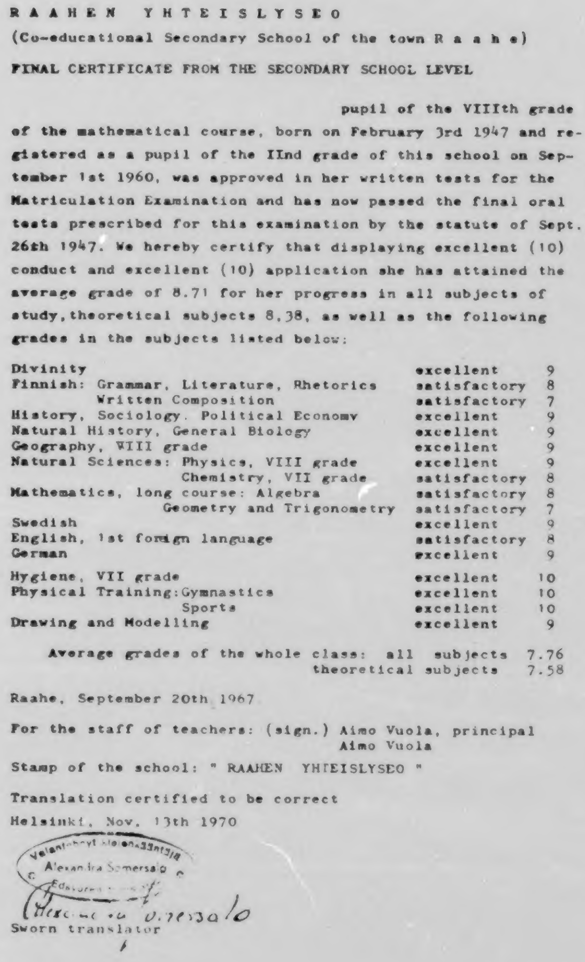
Uskonto		kiitettävä	(9)
Suomen kieli	Kielioppi, kirjallisuus ja suullinen esitys	tyydyttävä	(8)
	Kirjallinen esitys	tyydyttävä	(7)
Historia, yhteiskuntaoppi ja kansantaloustiede		kiitettävä	(9)
Sielutiede ja filosofia		-	(-)
Luonnonhistoria	Eläinoppi (- luokka)	-	(-)
	Kasvioppi (- luokka)	-	(-)
	Yleisbiologia	kiitettävä	(9)
Maantiede (VIII luokka)		kiitettävä	(9)
Luonnonoppi	Fysiikka (VIII luokka)	kiitettävä	(9)
	Kemia (VII luokka)	tyydyttävä	(8)
Matematiikka	Aritmetiikka ja algebra pitkä	tyydyttävä	(8)
	Geometria ja trigonometria oppimäärä	tyydyttävä	(7)
Ruotsin kieli		kiitettävä	(9)
Englannin kieli	1,vieras kieli (viikkotunnin kurssi)	tyydyttävä	(8)
Saksan kieli	(- viikkotunnin kurssi)	kiitettävä	(9)
Venäjän kieli	(- viikkotunnin kurssi)	-	(-)
Ranskan kieli	(- viikkotunnin kurssi)	-	(-)
Latinan kieli	(- viikkotunnin kurssi)	-	(-)
Terveysoppi (VII luokka)		kiitettävä	(10)
Liikuntakasvatus	Voimistelu	kiitettävä	(10)
	Urheilu	kiitettävä	(10)
Kuvaamataito (VIII luokka)		kiitettävä	(9)
Kirjoitus (- luokka)		-	(-)
Käsityö (- luokka)		-	(-)
Kotitalous (- luokka)		-	(-)
Musiikki (- luokka)		-	(-)
Vapaaehtoinen musiikki (laulu) (- luokka)		-	(-)
Vapaaehtoinen musiikki (soitto) (- luokka)		-	(-)
Pikakirjoitus (- luokka)		-	(-)
		-	(-)
		-	(-)

Luokan keskiarvot:
kaikissa aineissa 7,76
lukuaineissa 7,58

Raahessa, syys kuun 20 päivänä 196 7

Opettajakunnan puolesta Rehtori Aimo Vuola (Koulun leima)

Copy of Original Document



RAAHEN YHTEISLYSEO
(Co-educational Secondary School of the town Raahe)
FINAL CERTIFICATE FROM THE SECONDARY SCHOOL LEVEL

pupil of the VIIIth grade of the mathematical course, born on February 3rd 1947 and registered as a pupil of the IInd grade of this school on September 1st 1960, was approved in her written tests for the Matriculation Examination and has now passed the final oral tests prescribed for this examination by the statute of Sept. 26th 1947. We hereby certify that displaying excellent (10) conduct and excellent (10) application she has attained the average grade of 8.71 for her progress in all subjects of study, theoretical subjects 8,38, as well as the following grades in the subjects listed below:

Divinity	excellent	9
Finnish: Grammar, Literature, Rhetorics	satisfactory	8
Written Composition	satisfactory	7
History, Sociology, Political Economy	excellent	9
Natural History, General Biology	excellent	9
Geography, VIII grade	excellent	9
Natural Sciences: Physics, VIII grade	excellent	9
Chemistry, VII grade	satisfactory	8
Mathematics, long course: Algebra	satisfactory	8
Geometry and Trigonometry	satisfactory	7
Swedish	excellent	9
English, 1st foreign language	satisfactory	8
German	excellent	9
Hygiene, VII grade	excellent	10
Physical Training: Gymnastics	excellent	10
Sports	excellent	10
Drawing and Modelling	excellent	9

Average grades of the whole class: all subjects 7.76
theoretical subjects 7.58

Raahe, September 20th 1967

For the staff of teachers: (sign.) Aimo Vuola, principal
Aimo Vuola

Stamp of the school: " RAAHEN YHTEISLYSEO "

Translation certified to be correct
Helsinki, Nov. 13th 1970

Alexandra Somersalo

Sworn translator

Copy of English Translation

The matriculation examination, or final examination in the upper school, is essential for anyone wishing to enter university or higher educational college. It is also required for many private, municipal, and state appointments. Normally, every pupil who succeeds in reaching the highest class sits for a matriculation examination.

The examination consists of an oral and written section. The oral examination takes place both before and after the written examination during the period between the beginning of March and at the latest the middle of May. The oral tests include questions touching upon all subjects taught in the final academic year, with the exception of sports, gymnastics, and drawing. Pupils take the oral examinations in their own school, with their teacher acting as the examiner. However, school counselors, the principal, or person(s) appointed by the National Board of Schools can be present and, if necessary, intervene.

The written examination is held at the end of March or beginning of April. The questions are drawn up by the Matriculation Examination Board, whose members are nominated by the University of Helsinki and the National Board of Schools and appointed by the Ministry of Education. The examinations take place on the same day, at the same time, in every school throughout the country. A second examination is held at the beginning of September, for candidates who have failed in the spring. The written examination includes both compulsory and optional tests. The compulsory tests are in four main parts: (1) composition in the mother tongue (Finnish or Swedish); (2) exercise and translation in the second national language; (3) exercise and translation in the first foreign languages (chosen from among German, English, French, Russian, or Latin); (4) the fourth test is determined according to the direction the student has chosen in school--either mathematics or a *reaalikoe* ("real" examination) in the following subjects: religion, religious history, psychology, history, social and economic sciences, physics, chemistry, biology, and geography. There are between one and seven questions in each of these four subject areas. However, from all of these questions the pupil may answer only a maximum of ten questions.

In addition to these four compulsory tests, the pupil can choose two additional subjects. If, for example, he has taken mathematics as one of the compulsory subjects, he can, for the additional optional test, choose either the *reaalikoe* or he can choose two foreign languages.

It should be noted that a grade of *improbatur* (failure), for composition in the candidate's mother language results in automatic failure. This cannot be compensated for by a *laudatur* (excellent) grade in another subject. On the other hand, a slight failure in one subject may be compensated by a good average standard achieved in other subjects. Composition in Finnish (or Swedish) normally covers as many as a dozen subjects, ranging over a wide variety of topics: religious history, religion, history, philosophy, literature and poetry, biology, sports, current affairs, etc.

As candidates for the matriculation examination are subject to a rigorous selection process in the three final classes of the upper school, failures in the examination itself are relatively few: the percentage remains fairly constant at about 10-15 percent, and most of these pass the following autumn. Refer to Table II for the spring 1973 matriculation examination results.

TABLE II

MATRICULATION EXAMINATION RESULTS--SPRING 1973

N = 24,285 candidates
Age group numbered 80,000

General result of examination:

	Grade		Percentage
improbatur	fail	0	10.64
approbatur	a	2	2.40
lubenter	b	3	18.34
cum laude approbatur	c	4	23.30
magna cum laude appr.	m	5	28.88
laudatur	l	6	16.43

Average result--4.07
Standard Deviation--1.48

Upon leaving secondary school, the pupil receives two certificates: (1) the *ylioppilas* (certificate awarded by the Matriculation Examination Board), which shows the marks for the written examination and gives him the right to title himself "bachelor"; (2) the *ylioppilastutkintotodistus* (secondary school leaving certificate), issued by the school, and showing marks obtained in the subjects taught in the middle and upper schools.

Since both the school leaving certificate and the matriculation examination are mutually exclusive of each other, in theory, it is possible to obtain one of the documents without the other. Virtually all students proceeding toward matriculation will possess both credentials. It should be pointed out however, that it is possible for a student to complete the school leaving certificate and choose not to sit for the matriculation examination. On the other hand, it is possible for a student to leave the academic line after middle school in the old system or the basic comprehensive school in the new system, enter a nonacademic tract (i.e., technical), then choose to return to sit for the matriculation examination.

Finally, although unanimity could not be reached, the Finnish team felt that a student possessing only the school leaving certificate and not the matriculation might be considered for freshman standing. Evaluation of the candidate should be completed with use of grades received in the *lukio* based upon the standards of the respective institution of higher education to which the student applies.

The efforts to develop the single nationwide examination in the Finnish educational system have now advanced to the point that the matriculation examination in its present form is being changed and will eventually be abolished. At the same time the selection process to colleges and universities in Finland will be made uniform according to sector (i.e., institutes of technology, business schools, schools of medicine, etc.).

In 1972 the right to participate in the matriculation examination was extended to include persons who have passed the final examination in vocational or technical schools after two or three years of study, without the preceding studies in the senior secondary school, or after having completed certain supplementary studies in a foreign language as well as in the second national language. Taking the matriculation examination also after certain vocational studies makes it possible to change one's study sector and can create the opportunity for better and more diversified further education. The present selection methods for entrance to universities aim at reserving study places for students seeking admission to universities directly from the vocational or technical schools without possessing the intervening matriculation examination.

D. The New Comprehensive School. In 1963 parliament accepted a recommendation to the government on the renewal of basic education in accordance with the principle of the comprehensive school. Since that time the main efforts of Finnish school authorities have been focused on preparatory measures for the implementation of this long-planned reform of basic education. Several national committees have been engaged in the planning. The law governing the basic principles and stating the structure of the new school became valid on September 1, 1970. The curriculum for the new comprehensive school was issued during that same year. Extensive experimentation has been carried on all through the 1960s with the comprehensive schools. The feedback on this experimentation has essentially profited curriculum planning for the new school. Tables III, IV, and V describe the curriculums for the old and new systems including the gymnasium.

TABLE III

CURRICULUM FOR AN 8-GRADE SECONDARY SCHOOL (OLD SYSTEM)*

	MIDDLE SCHOOL					UPPER SCHOOL						TOTAL	
	I	II	III	IV	V	VI		VII		VIII			
						A	B	A	B	A	B	A	B
COMPULSORY SUBJECTS:													
Religion	2	2	2	2	2	2	2	2	2	2	2	16	16
Finnish (or Swedish)	4	3	4	3	4	3	3	3	3	3	3	27	27
History, social and economic sciences . .		2	3	3	4	3	3	3	3	4	4	22	22
Psychology and philosophy						2	2	2	2	2	2	6	6
Natural sciences and geography . . .	6	3	4	4	4	2	2	2	2	2	2	27	27
Physics and chemistry				4	4		3		3		3	8	17
Mathematics	5	4	4	4	4	3	5	3	5	3	5	30	36
Second national language (Swedish or Finnish)	4	3	3	3	2	3	3	3	3	3	3	24	24
First foreign language (English, German, or in some cases, Russian, Latin, French) . .		5	5	4	3	4	4	4	4	3	3	28	28
Latin or second foreign language (English, German or Russian)						5		5		5		15	
Third foreign language (French or English) .						3	3	3	3	3	3	9	9
Gymnastics, sports, hygiene	4	3	4	4	4	3	3	3	3	3	3	28	28
Drawing, modelling, calligraphy . . .	3	3	2	2	2	2	2	2	2	2	2	18	18
Handwork	2	2	2									6	6
Singing	2	2										4	4
Total	32	32	33	33	33	33		33		33			
OPTIONAL SUBJECTS:													
Handwork or stenography				2	2							4	4
Singing			2	1	1							4	4
Music or English						2	2	2	2	2	2	6	6
Total	32	32	35	36	36	35		35		35			

*Figures indicate approximate hours of classroom work each week for an academic year.

TABLE IV

CURRICULUM FOR THE 9-GRADE COMPREHENSIVE SCHOOL (NEW SYSTEM)*

	ACADEMIC YEAR								
	I	II	III	IV	V	VI	VII	VIII	IX
Compulsory Subjects:									
Religion	2	2	2	2	2	2	1	1	1
Environment studies . . .	3	3	1	1					
Mother tongue	9	9	6	6	6	6	3	3	3
First foreign language or second national language .			2	2	3	3	3	3	3
Second national language or first foreign language . .							2	2-5	2-5
History, social science . .					2	2	2	2	2
Civics			1	1	1	1	1	1	1
Mathematics	4	4	4	4	4	4	4	4	4
Physics, chemistry . . .							2	3	3
Biology, geography . . .			3	3	4	4	2	3	3
Physical education . . .			3	3	3	3	2	2	3
Music	3	3	4	4	4	4			
Pictorial arts	1	1					1	1	
Manual education . . .	2	2	2	2	2	2	2		
Home economics							3		
Total	24	24	28	28	31	31	28	25-28	25-28
Educational Guidance	1	1	1	1	1	1	1	1	1
Optional Courses							4-6	4-9	4-9
Total	25	25	29	29	32	32	33-35	30-38	30-38

*Figures indicate approximate number of hours of classroom work each week for an academic year.

TABLE V

CURRICULUM FOR GYMNASIUM (NEW SYSTEM)*

Courses Common for All Lines:	ACADEMIC YEAR X	XI	XII	Total
Religion	4	3	3	10
Mother tongue	5	6	6	17
History, social science, economics	5	6	6	17
Biology		3	4	7
Second national language	5	5	5	15
First foreign language	7	6	7	20
Second foreign language	7	6	7	20
Physical education and hygiene	5	5	3	13
Visual arts or music	3	3	2	8
Total	41	43	43	127

Subjects Compulsory on Various Lines:	Language Line X	XI	XII	Science Line X	XI	XII	Mathematical Line X	XI	XII
Psychology, philosophy				3	4	3			
Geography	3			3					
Chemistry				3	4	3	3		
Physics				5	5	5	5	5	5
Mathematics	5	5	5	5	5	5	8	9	8
Third foreign language	8	9	8						
Total	16	14	13	19	18	16	16	14	13

Optional Courses for All Lines:	X	XI	XII
Special course in mother tongue	2	1	
Visual arts or music	3	3	2
Special course in music	1	2	

Optional Courses for Pupils on Various Lines:	Language Line X	XI	XII	Science Line X	XI	XII	Mathematical Line X	XI	XII
Psychology, philosophy	3	4	3						
Geography							3		
Special course in geography		2	1		2	1	2	2	1
Chemistry	3							4	3
Special course in physics									2
Special course in mathematics								1	2

*Figures indicate approximate number of hours of classroom work each week for an academic year.

The transition to the comprehensive school will be implemented gradually so that the northern municipalities will transfer to the comprehensive school system before the municipalities in southern Finland. The last municipalities implementing the reform will be the regions around Helsinki and the capital itself in the year 1977. A gradual transition to the system began in the autumn of 1972. Then, the entire county of Lapland (26 municipalities), three municipalities where the experiment had already been implemented transferred to the comprehensive school system.

When pupils pass from the sixth grade to the upper level, studies become more individualized. Students and their parents are given options concerning the study program. This is explicitly decreed in the School System Act of 1967. Under this Act, the pupil's parents, after receiving the necessary information given by the school on the pupil's ability and qualifications, are allowed to choose the courses and subjects the student will study at the upper level of the comprehensive school. This choice can greatly affect the future of the student.

One of the aims of the comprehensive school has been to decrease grade repeating and the frequency of poor marks. Thus far the results of the experiment show that certain measures can help solve this problem. Less than one percent of the pupils in the comprehensive school have indeed been kept at the same grade level for the second year. In the old secondary school the number of such cases has been reduced to one-fourth the frequency in the secondary school. This is due to three parallel measures:

1. Within the so-called "difficult" subjects, pupils are allowed to choose courses where their level of aspiration corresponds to their level of achievement. This also helps to motivate students.

2. Pupils who have temporary difficulties in learning are given supplementary instruction in their mother tongue, mathematics, and foreign languages. The lack of suitable material makes it difficult, however, to give such instruction.

3. Pupils are allowed to shift from one course to another even in the middle of the term. Moreover, at the end of the term they are also allowed to move to a lower level course, so that they can earn a sufficient mark. This right has in fact been exercised in 50 percent of the cases where a poor mark is forecasted.

E. The Grading System--Secondary School. From their first year, pupils in both primary and secondary schools receive marks at the end of the two school-year terms for every academic subject. Marking is on a 0 to 10 scale with 5 being the lowest passing mark and 10 the highest (*see* Table VI).

TABLE VI

THE GRADING SYSTEM--SECONDARY

Päästötodistus (School Leaving Certificate)

Finnish Term	English Equivalent	Numerical Equivalent
Kiitettävä	Excellent	9-10
Tyydyttävä	Good	7-8
Välttävä	Fair	5-6
Heikko	Fail	4

Ylioppilastutkinto (Matriculation Examination)

Latin Term	English Equivalent	Numerical Equivalent
Laudatur	Excellent	6
Magna Cum Laude Approbatur	Very Good	5
Cum Laude Approbatur	Good	4
Lubenter	Fair	3
Approbatur	Fair (Lowest Passing)	2
Improbatur	Failure	0

A pupil who has sufficient marks in all subjects is promoted to the next class. If he has a poor mark he will not have to stay a second year in the same class provided that he passes a supplementary examination in the fall. If he has poor marks in two subjects, he must remain in the same class.

For the *ylioppilastutkinto* (matriculation examination) there are six different marks for the written examination papers: *See* Table VII. In order to pass with the distinction of *laudatur* (excellent) for the entire written examination, a candidate must have a total of at least ten points in four subjects: *approbatur* = 1 point; *cum laude approbatur* = 2 points; *laudatur* = 3 points. For a general *cum laude approbatur*, a minimum of 7 points in four subjects is required. A good general mark is in fact very important for pupils who wish to continue their studies in a higher educational college and university.

Table VII shows the grade distributions of pupils of various subject courses as reported by the schools to the National Board of Schools. Not only can the relative value of a particular grade be determined, but also the overall level of the intelligence of proficiency of a class or school can be judged by the National Board inspectors.

TABLE VII

GRADE DISTRIBUTIONS OF *PÄÄSTÖTODISTUS*--1972

	4	5	6	7 (Percentages)	8	9	10	Number of Pupils	Average	Standard Deviation
Finnish, grammar and literature	0.03	0.83	9.19	32.74	35.70	18.87	2.63	20,762	7.70	0.99
Composition	0.03	2.66	15.75	33.86	30.96	15.57	1.15	20,762	7.44	1.05
Swedish	1.66	15.89	25.67	23.85	18.35	11.86	2.71	20,753	6.88	1.39
Obligatory English	1.81	16.58	25.24	23.39	18.36	11.51	3.11	13,332	6.87	1.41
Obligatory German	2.16	17.17	24.91	23.25	17.86	11.36	3.29	7,234	6.85	1.43
Voluntary English	0.48	9.03	21.14	25.55	23.42	16.40	3.99	7,319	7.28	1.34
Voluntary German	0.79	10.99	22.02	23.70	22.13	16.21	4.15	12,710	7.21	1.39
Religious instruction	0.00	0.49	5.09	25.59	39.19	24.69	4.95	20,137	7.97	0.97
Psychology	0.01	0.45	4.08	23.79	41.47	26.23	3.97	10,523	8.01	0.93
History	0.07	1.59	10.77	29.02	33.90	20.79	3.85	20,751	7.73	1.08
Physics	0.18	4.77	18.39	26.95	26.01	19.11	4.58	11,502	7.49	1.26
Chemistry	0.07	2.81	12.44	25.48	29.25	23.39	6.54	5,258	7.77	1.21
Biology	0.06	1.37	9.02	27.19	35.13	22.88	4.35	16,694	7.82	1.07
Mathematics--A	1.62	13.40	23.15	24.32	20.90	16.61	0.00	7,455	6.99	1.34
B	1.59	17.12	27.09	23.49	18.32	12.40	0.00	10,848	6.77	1.31
C	1.82	14.61	25.63	25.77	16.85	15.31	0.00	1,424	6.87	1.33

F. Special Characteristics. It was felt by the team that academic letters of reference from appropriate school teachers or officials are candid and frank. They can be of real value in the selection process as a subjective assessment of a student's academic ability.

It was found that since the *päästötodistus* (school leaving certificate) is a document achieved exclusive of the *ylioppilastutkintotodistus* (matriculation certificate), and reflects work achieved over a three-year gymnasium period, a more accurate indication of the student's strengths can be obtained from an evaluation of this school leaving certificate rather than from the matriculation examination.

IV. VOCATIONAL/TECHNICAL EDUCATION

Upper secondary (grades 10 to 12) nonacademic institutions consist of three levels of instruction; vocational school, specialized vocational and technical schools, and technical-vocational colleges. In 1972, there were 515 such institutions. Vocational schools generally offer both two and three-year courses; they represent the lowest level of vocational training. However, the possibility does exist to advance from a vocational school, for example, on to a technical school and then on to a technical college. Technical school programs are three years in length and provide training for technicians. Entry requires a primary school leaving certificate or lower secondary school leaving certificate, two years of practical experience and written examinations in language and mathematics. Technical colleges are geared toward engineering technology in the North American sense. Both three and four-year programs are offered, and outstanding graduates are eligible for entry into one of the country's three technical universities. Although all these programs can be entered by those holding the *keskikoulun päästötodistus* (lower secondary certificate), in practice, many holders of the *ylioppilastutkintotodistus* (matriculation certificate) are filling the classes, especially at the technical college level. The proposed school reform hopes to increase mobility both within the nonacademic institutions and from these institutions into university studies. Table VIII describes admission requirements and number of years required for various nonuniversity study programs.

TABLE VIII

Type of Institution	Admission Requirements	Length of Study
Vocational schools (commerce, nursing, maritime, domestic science, agriculture, forestry, etc.)	Completion of the primary school (eight years) OR in some cases *Keskikoulun Päästötodistus*	2-3 years
Specialized vocational and technical schools	Primary school leaving certificate and completion of lower level vocational school OR *Keskikoulun Päästötodistus* plus two years practical experience and written examinations in mathematics and language	3 years
Technical colleges	*Keskikoulun Päästötodistus* OR	4 years
	Ylioppilastutkintotodistus	3 years
Commercial colleges	*Keskikoulun Päästötodistus* OR	2 years
	Ylioppilastutkintotodistus	1 year
Nursing colleges	*Keskikoulun Päästötodistus* OR	3 years
	Ylioppilastutkintotodistus	3 years
Data processing institutes	*Keskikoulun Päästötodistus* OR *Ylioppilastutkintotodistus*	2-3 years

V. HIGHER EDUCATION

In 1973, there were 17 university-level institutions in Finland, including three universities of technology, and five schools of economics. The locations and major fields are shown in Table IX. Eleven of the total are state owned and six are private. However, the state provides approximately 75 percent of the support for the private schools. Enrollment has been increasing dramatically and has more than doubled in the 1960s. In 1972, the enrollment of students was over 60,000. In addition to the 17 university level institutions, there are several other institutions of higher education.

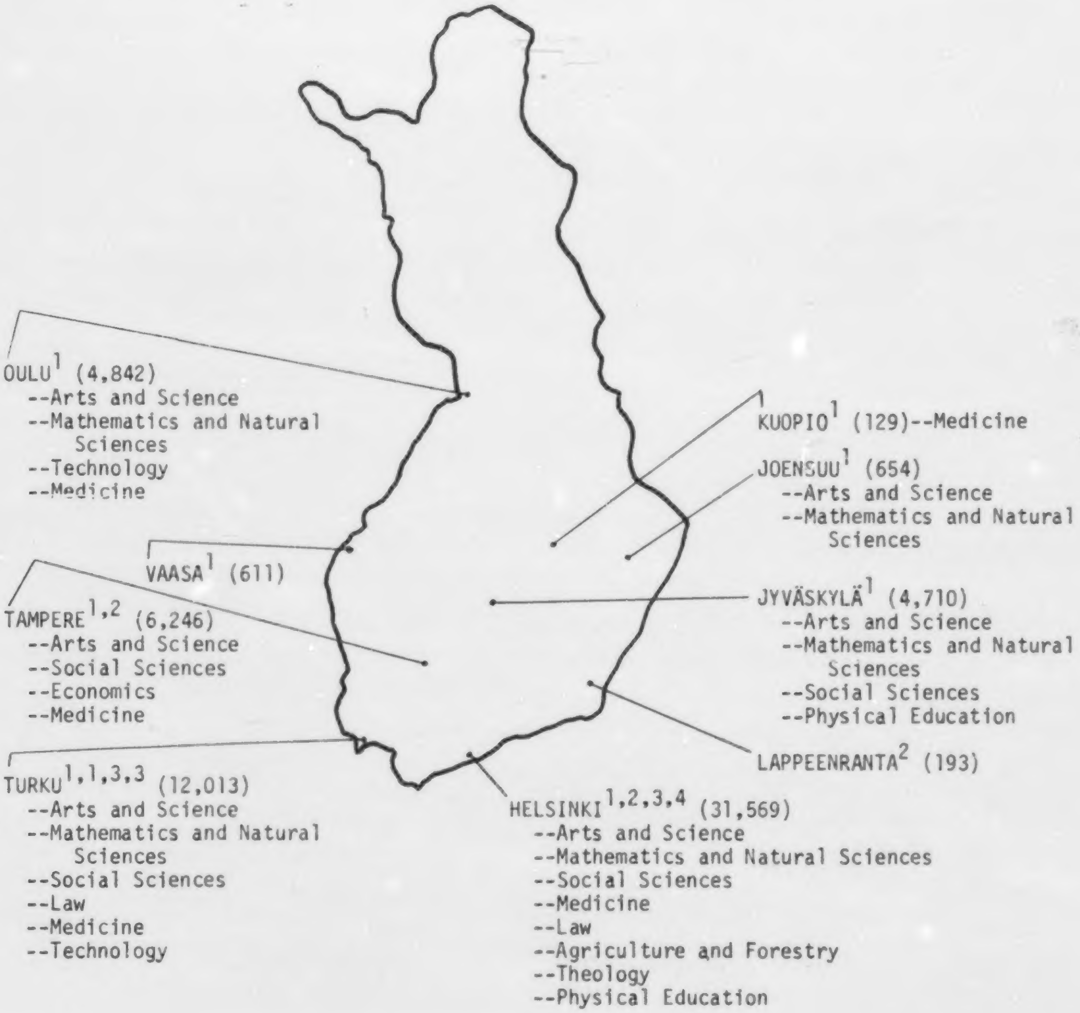
A. University Education

1. Admission Requirements. A matriculation certificate and a senior secondary school leaving certificate are generally required for admission to an institution of higher education. Holders of the *ylioppilastutkintotodistus* (matriculation certificate) may no longer automatically enter a Finnish university. Most university faculties have adopted a *numerus clausus* system, thus admitting only students with a general mark of *laudatur*, or in some cases, *cum laude* in the *ylioppilastutkintotodistus*. A percentage of the remaining applicants must pass the entrance examination. Only about 50 percent of Finnish students are able to gain access to the institutions of higher education.

There is a trend in Finland towards more open access to the university level education. According to the 1971 Act on Matriculation Examination and to a decision by the Ministry of Education's interpretation of the Act, admission will be awarded to holders of a diploma from a technical or commercial college with a three-four year program, from a college for nurses (with a completed course in a specialized field), from a captain's course in a navigational college, from a teacher training institute, and from the educational section of University of Tampere, and the Swedish School of Social Work and Local Administration.

In addition to an excellent diploma, the applicant must possess a recommendation of

TABLE IX. UNIVERSITY TOWNS AND THE NUMBER OF STUDENTS IN FINLAND DURING THE 1972 AUTUMN SEMESTER
(Total number of students enrolled: 60,967)


OULU[1] (4,842)
--Arts and Science
--Mathematics and Natural Sciences
--Technology
--Medicine
VAASA[1] (611)
TAMPERE[1,2] (6,246)
--Arts and Science
--Social Sciences
--Economics
--Medicine
TURKU[1,1,3,3] (12,013)
--Arts and Science
--Mathematics and Natural Sciences
--Social Sciences
--Law
--Medicine
--Technology
KUOPIO[1] (129)--Medicine
JOENSUU[1] (654)
--Arts and Science
--Mathematics and Natural Sciences
JYVÄSKYLÄ[1] (4,710)
--Arts and Science
--Mathematics and Natural Sciences
--Social Sciences
--Physical Education
LAPPEENRANTA[2] (193)
HELSINKI[1,2,3,4] (31,569)
--Arts and Science
--Mathematics and Natural Sciences
--Social Sciences
--Medicine
--Law
--Agriculture and Forestry
--Theology
--Physical Education

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[1] University or College

[2] University of Technology

[3] School of Economics

[4] College of Veterinary Medicine

( ) = Number of students enrolled in higher educational institutions in each city.

further studies in a technical university or similar institute. Institutions of higher education have reserved a limited quota (five percent or ten percent) for applicants with diplomas.

An applicant without a diploma and a matriculation certificate can be admitted if it can be demonstrated that he or she meets the standards of a senior secondary school graduate.

2. Degrees and Degree Requirements. In most faculties, the first degree awarded is the *kandidaatti*; some faculties award both a lower and higher *kandidaatti*. When a lower *kandidaatti* is awarded, it usually represents 2 1/2 or four years of study. The higher *kandidaatti* usually takes an additional three years to complete; however, the length varies according to when a student elects to take his examination. When basic and supplementary courses have been met, he is free to choose among the nine testing dates per year. In economics, engineering and architecture, the first degrees are respectively called *diplomi ekonomi* (three year program), *diplomi insinööri* (four years), and *arkkitehti* (four years). The *lisensiaatti* degree follows the *kandidaatti*. It usually takes an additional two to four years to complete. The *tohtori* or doctorate is not classified as a degree. Instead, it is the title conferred by a faculty upon a holder of a *lisensiaatti* degree who successfully publicly defends his printed thesis. The time needed to complete such a process is usually two to four additional years after the *lisensiaatti* degree. To summarize, the following equation might be helpful.

5-6 years = (full) *kandidaatti*
additional 2-4 years
+ thesis + exam = *lisensiaatti*
publicly defended thesis = *tohtori*

In each of the three stages of study, the title is usually preceded by the name of the faculty in which it is awarded, such as *filosofian kandidaatti*, *filosofian lisensiaatti*, or *filosofian tohtori*. The *maisteri* title is strictly honorary and may be obtained by any holder of the upper *kandidaatti*.

Degrees are usually completed in a three stage system. Each stage represents a separate level of intensity. The *approbatur* stage represents general knowledge in a subject (introductory courses). The *cum laude approbatur* stage represents a much more extensive knowledge of the subject. The *laudatur* stage represents mastery of the subject. It is very important to realize that each of the three stages represents a group of courses in the subject area. The number and combination of courses at each level varies according to the faculty in which the degree is awarded. For each stage there are required lectures and periodical examinations. At the *approbatur* stage, the lectures sometimes replace a final examination. At the *cum laude approbatur* stage, students attend a "pro seminar," a weekly class session presided over by a lecturer and demanding student participation as well as a research paper. The *laudatur* stage sessions are called seminars and are chaired by a professor. A *laudatur-thesis* is required (called a *pro gradu-thesis* when it is in the major field) and is usually 50 to 100 pages in length. Translation tests in two or three languages are also sometimes required.

Degree requirements vary a great deal depending on the faculty or the university. Generally, in order to be able to graduate, the student must take at least two minor subjects in addition to his major subject. The following illustrates the components of the various degrees.*

a. The Lower *Kandidaatti* Degree

Cum Laude Approbatur	*Cum Laude Approbatur*	
Approbatur MAJOR	*Approbatur* FIRST MINOR	*Approbatur* SECOND MINOR
Basic and Supplementary Courses		

b. The Upper *Kandidaatti* Degree

Laudatur Thesis		
Laudatur		
Cum Laude Approbatur	*Cum Laude Approbatur*	*Cum Laude Approbatur*
Approbatur MAJOR	*Approbatur* FIRST MINOR	*Approbatur* SECOND MINOR
Basic and Supplementary Courses		

c. The *Lisensiaatti* Degree

Licentiate Thesis		
Licentiate Examination		
Laudatur Thesis	*Laudatur Thesis*	
Laudatur	*Laudatur*	*Laudatur*
Cum Laude Approbatur	*Cum Laude Approbatur*	*Cum Laude Approbatur*
Approbatur MAJOR	*Approbatur* FIRST MINOR	*Approbatur* SECOND MINOR
Basic and Supplementary Courses		

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*Helsinki Ministry of Education. *Higher Education and Research in Finland*. Helsinki: Helsinki Government Printing Center, 1973. pp. 32-33.

B. Other Institutions of Higher Education. An increased number of students with their matriculation examinations have taken spaces at colleges or institutions originally planned for the students with the lower level school leaving certificates. The increased demand for the college or institute level education has brought about structural changes in the educational systems. Several such colleges (the technical and commercial colleges) presently offer special programs for students with the matriculation certificate and some institutes have been recognized or are in the process of being recognized as institutions of higher education. The most important of such institutions in the field of fine arts are the College of Education in Pictorial Art and Industrial Design, the Sibelius Academy, and the section of dramatic arts in the Finnish Theatre School. In the field of social sciences, the main programs for matriculated students are the educational section of the University of Tampere and the Swedish School for Social Work and Local Administration. In the field of humanities, there are the Finnish Seminary for Orthodox Priests and institutes for training of translators and interpreters called *kieli-instituutti*. In the medical fields, there are several institutes for para-medical workers.

The Institute of Pharmacy (*farmasian laitas*) is located at the University of Helsinki and Abo Academy. The diploma of *farmaseutti* should not be confused with the *proviisori* (pharmacist) diploma in the Department of Pharmacy at the Helsinki University which takes four plus two years to complete. The Nursing Colleges of Helsinki and Turku provide training of specialized and administrative health personnel and directors of nursing services and nursing teachers.

Commercial and technical colleges and institutions for data processing and marketing, though vocational in nature, have been included in this Report as institutions of higher education for two reasons: The admission to programs in these institutions is based on the results of the matriculation examination and the instruction provided at these colleges is at the level of or above the junior college instruction in North America.

In the field of education, according to the Teacher Training Act of 1971, the training of teachers at the comprehensive and upper secondary level was transferred to the universities effective August 1973. Up to this date, teacher training was provided at the institutions of higher education, at separate teacher training units in connection with the institution of higher education, at temporary teacher training colleges and at seminaries. There are three institutions of higher education for training of teachers for specialized fields: *Lastentarha Seminaari-Ebeneser* (Training College of Nursery School Teachers), the *Helsingin Käsityönopettajaopisto* (Helsinki Training College for Handicraft Teachers) and the *Helsingin Kotitalousopettajaopisto* (Helsinki Training College of Teachers in Home Economics).

C. University-Level Grading. A university student's *opintokirja* (study book) will indicate his individual *approbatur* level courses and their completion dates, as well as the completion for the whole *approbatur* stage. However, no grades are assigned at this level. *Cum laude approbatur* and *laudatur* individual courses may or may not show a grade; however, the final examination for each stage is graded. In most such cases, the following scale is used: *tyydyttävät tiedot* (satisfactory), *hyvät tiedot* (good), and *erinomaiset tiedot* (excellent). The technological university uses a point system in evaluating student performance. If a different scale appears in the study book, an explanation should also appear. If not, it should be requested. The *laudatur-thesis* is graded using the following scale: *laudatur* (best), *eximia cum laude approbatur, magna cum laude approbatur, cum laude approbatur, non sin laude approbatur, lubenter approbatur* and *approbatur* or *improbatur* (fail).

It should be noted that the reform of degree examinations is one of the most important issues in the internal development of Finnish institutions of higher education.

VI. FINLAND RECOMMENDATIONS

The *ylioppilastutkinto* (matriculation examination) has no comparable examination in the United States. In Finland the *ylioppilastutkinto* still has a strong academic orientation. Presently the preparation does not include any vocational or technical training which is a characteristic of the comprehensive American high school. Even though the basic education in the new educational system in Finland is comprehensive in nature, the upper secondary school curriculum has remained relatively unchanged. The future plans, however, include a reform of the upper secondary education. Any discussion of Finnish versus U.S. secondary education must take the comprehensive nature of U.S. high schools into consideration.

In addition, consideration must be given to the wide variety of admission requirements of the different types of American colleges and universities. Some have a nonselective admissions policy. They will admit all students with high school diplomas regardless of course selection in high schools and grades earned. Others are moderately selective. They require a minimum number of units in English, mathematics, natural sciences, social sciences, and a foreign language and require a minimum grade point average. A third group of universities is very selective, so that only 10 to 15 percent of the high school graduates will qualify for admission. Increasing numbers of North American institutions of higher education offer new students opportunities for advanced placement credits by examinations such as College Level Examination Program and some others. Foreign students may take advantage of these examinations.

The following recommendations are aimed at North American institutions having a moderately selective admissions policy.

1. Students possessing a *päästötodistus* (school leaving certificate) and the *ylioppilastutkintotodistus* (matriculation certificate) generally should be considered for admission and one year of advanced credit. Distribution of such credit should be in accordance with previous areas of academic concentration.

2. Students possessing the *ylioppilastutkintotodistus* and the *päästötodistus*, who have completed three years of studies at a technical college or one year of study at an economics college should be considered for admission with the possibility of further advanced credit beyond the aforementioned one year on a course by course basis.

3. Graduates of the four-year technical college program who apply to engineering programs in North America should be considered for advanced credit generally on a course by course basis.

4. Graduates from a professional institute such as Sibelius Academy (teacher training colleges), who possess the *keskikoulun päästötodistus* (lower secondary leaving certificate), should be considered for admission to North American institutions with advanced credit on a course by course basis. Those graduates possessing the *ylioppilastutkintotodistus* (matriculation certificate) should be considered for additional credit as stated in recommendation number one.

5. Students possessing the lower level *kandidaati* degree such as *humanisten tieteiden kandidaatti*, *luonnontieteiden kandidaatti*, or a *diplomi ekonomi* should generally be considered eligible for graduate admission.

6. Students possessing the upper level candidate degree such as *filosofian kandidaatti* generally should be considered at a level similar to a Master's degree.

VII. GLOSSARY OF FINNISH EDUCATIONAL TERMS

Ammattikasvatushallitus--National board of vocational education

Approbatur--(1) a fair standing in a subject in the matriculation examination

(2) a group of undergraduate introductory courses, the lower stage in university studies requiring general knowledge of the subject

Arkkitehti--Diploma from a university of technology representing four years of study, similar to upper level *kandidaatti* degree

Cum laude approbatur--(1) good standing in a subject at the matriculation examination

(2) the second stage in university studies requiring an extensive knowledge of a subject, undergraduate and graduate material

Diplomi ekonomi--Diploma from a school of economics and business administration representing three years of study, similar to a lower level *kandidaatti*

Diplomi-insinööri--Diploma from a university of technology representing four years of study similar to upper level *kandidaatti* degree

Erinomaisesti suoritettu--Excellent standing

Filosofian kandidaatti tutkinto--Similar to a M.A.--requires a minimum of 1 *laudatur* and 2 *cum laude approbatur*, or 1 *laudatur*, 1 *cum laude approbatur* and 2 *approbatur*, or 2 *laudatur* and 1 *approbatur*

Heikko--Fail

Humanististen tieteiden kandidaatti--A degree similar to a B.A. requiring a minimum of 2 *cum laude approbatur* and 1 *approbatur* or 1 *cum laude approbatur* and 3 *approbatur*

Hyvat tiedot--Good

Hyvin suoritettu--Good standing

Improbatur--Grade of failing

Kandidaatti--First degree awarded in universities, can be either upper or lower: lower represents two to four years of study and is similar to a Bachelor's degree; upper represents an additional one to two years of study and is similar to a Master's degree

Kansakoulu--Primary school with six grades

Kansalaiskoulu--Civic school with two or three grades

Kauppakoulu--Commercial school

Kauppatieteiden kandidaatti--Upper level *kandidaatti* in school of economics and business administration

Keskikoulu--Middle school, or five grade lower secondary school

Keskikoulun päästötodistus--Lower secondary leaving certificate

Kiitettävä--Excellent

Korkeakoulu--University level institution of higher education

Koulu--School

Kouluhallitus--National board of schools

Lastentarhat--Kindergartens

Laudatur--(1) an excellent standing at the matriculation examination

(2) the third and highest stage in university studies requiring complete mastery of the major subject

Lehtori--Teacher in a secondary school

Lisensiaatti--Degree requiring two to four years of work beyond that required for the upper *kandidaatti*

Lubenter--Fair

Lukio--Upper academic secondary school of three grades, the gymnasium

Luonnontieteiden kandidaatti--Similar to a B.S. requiring a minimum of 2 *cum laude approbatur* and 1 *approbatur* or 1 *cum laude approbatur* and 3 *approbatur*

Maatalousopistot--Two and three year agricultural colleges

Maisteri--An honorary title to be obtained by any holder of the upper *kandidaatti* degree

Numerus clausus--Quota system

Oikeuskansleri--Chancellor of Justice

Opettaja--Teacher

Opintokirja--Study book

Opisto--College

Oppikoulu--Academic secondary school

Oppikoulun Päästötodistus--Upper level certificate

Päästötodistus--Secondary school leaving certificate

Peruskoulu--Compulsory comprehensive school in the new system

Pro-gradu--*laudatur* thesis

Proviisori--Pharmacist

Reaalikoe--"real" examination

Teknillinen koulu--Three year technical school

Todistus--Certificate

Tohtori--Degree requiring two or more years of work beyond the *lisensiaatti* degree

Tutkinto--Examination

Tyydyttävä--Good

Tyydyttävät tiedot--Satisfactory

Valtiotieteiden kandidaatti--Master of Social Sciences

Välttävä--Fair

Yhteiskoulu--Academic secondary school

Yläaste--Grades 7 to 9

Yliopisto--University

Ylioppilas--Holder of matriculation examination certificate

Ylioppilastutkinto--Matriculation examination--graduation examination from the academic secondary school and a requirement for access to higher education

Ylioppilastutkintotodistus--Matriculation examination certificate

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ICELAND

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Reykjavik
100 miles

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I. CHART OF THE ICELANDIC EDUCATIONAL SYSTEM

Age	School Year	ICELAND						
24	18	University of Iceland[c]			*Tækniskóli* (technical school)		*Búnaðarskóli* (agric.) *Húsmæðraskóli* (home economics) *Garðyrkjuskóli* (horticulture)	*Hjúkrunarskóli* (nursing) *Myndlista* (arts & crafts)
23	17							
22	16							
21	15							
20	14				*Iðnskóli*[f] (vocational training)	*Almenn Kennaradeild*[e] (general teacher trng.)		
19	13	*Menntaskóli*[b] (gymnasium)						
18	12		Commercial "Jun. Coll."	*Samvinnuskóli* (commercial)				
17	11							
16	10		Commercial High School[d]	Upper Secondary				
15	9	*Landsprófdeild*						
14	8[a]	*Bóknámsdeild Unglingaskóli*		*Verknámsdeild Unglingaskóli* (vocational lower secondary)				
13	7							
12	6	*Barnaskóli* (primary school)						
11	5							
10	4							
9	3							
8	2							
7	1							
6		Pre-school						
5								

U.S.A.	School Year	Age
Graduate School	18	23
	17	22
Under-graduate Education	16	21
	15	20
	14	19
	13	18
Secondary School	12	17
	11	16
	10	15
	9	14
	8	13
	7	12
Elementary School	6	11
	5	10
	4	9
	3	8
	2	7
	1	6
Kindergarten	K	5
Pre-school		4

Notes:

a. Compulsory education is the eighth year

b. Two divisions (*Maladeild* = language division and *Náttúrufræðideild* = natural science division)

c. Faculties of the University of Iceland and duration of programs are described in text.

d. Some students will enter the Commercial High School a year later at age 14

e. Some students may enter teacher training after the *Landsprófdeild*, or during and after *Menntaskóli*

f. Preparation for entry into *Tækniskóli* varies considerably

II. BACKGROUND

Iceland is the smallest modern nation of the world with a total population of some 210,000 inhabitants. It is also the most sparsely populated country in Europe with an average of two inhabitants per square kilometer. The total area of land is 39,709 square miles. The interior consists of mountains and high plateaus devoid of human habitation. The entire population is located on the coast around the country. The coastal line is about 3,700 miles.

Approximately half of the nation's population lives in Reykjavik and the surrounding area. The rest of the Icelanders live in a number of villages with populations of 50-2,000 inhabitants and a few towns with a population of 2,000-10,000.

Iceland was settled by pagan Norsemen mixed with Celts from the British Isles. The The settlement took place mainly between 870 and 930 and that year the *Althing* (parliament) was founded at Thingvellir. The Icelandic commonwealth lasted until 1262, when Iceland lost its independence to Norway. In 1380 Iceland together with Norway came under the Danish king and remained so until it obtained full independence in 1944. However, in 1904 it got home rule and in 1918 partial sovereignty. Other important dates in Icelandic history would be the year 1000 when Christianity was adopted, the same year America was discovered by Icelanders. In 1550 Catholicism was abolished and Lutheranism adopted.

Around 1100 the population, then entirely rural, is estimated to have been about 70,000-80,000. Three times in the eighteenth century it dropped back below 40,000, but by the turn of the last century it had reached 78,000. In 1925 it had passed the 100,000 mark and by 1968 it reached 200,000.

The birth rate is one of the highest in Europe and the death rate one of the lowest in the world (7 per 1,000). Infant mortality is also lower than in most countries (15 per 1,000). The average life expectancy for men is 71 years and for women 75 years.

Icelandic climate is cool temperate and oceanic. influenced by two different air and ocean currents, one of polar and the other of tropical origin. The mean annual temperature in Reykjavik is 41°F. In January it is 31°F and in July it is 52°F. Annual precipitation reaches 120 inches or 3,000 mm. Coastal areas tend to be windy and the weather on the whole quite changeable.

Continuous daylight lasts for two and half months in summer. Early spring and late fall has long twilights, while the dark period (three or four hours of daylight) lasts from mid-November to the end of January.

Improved transportation by land, air and sea together with the coming of television has made the living conditions in rural areas more acceptable than it used to be.

The Icelandic economy is strong, with high per capita income, no unemployment and no poverty. Economically, Iceland might be considered a classless society although there appears to be a strong class consciousness in the bureaucracy, among government and public officials, and last but not least, the intellectuals.

Icelanders enjoy fine arts, music and literature. The National Theatre is among the most popular places of entertainment in Iceland.

In recent years new ideology of social reform including reorganization of education has swept over Iceland. The traditional education philosophy with the primary objectives of identifying the intellects has had to give in to the new philosophy of equality of educational opportunities for all.

Culture. Iceland is a modern western society. Icelanders are linguistically, culturally, and geographically closely related to Scandinavia and they consider themselves Scandinavians or "Nordic." There are close social ties between the Nordic nations with regular consultations on all aspects of social and foreign affairs through the Nordic Council, a strong regional organization.

Icelanders are primarily of Norwegian descent. The language spoken is Icelandic, similar to Old Norse, a language which was spoken throughout Scandinavia in the Viking period but has been preserved in Iceland with only slight changes from its original form. All other Scandinavian languages are derived from this language. Most Icelanders speak one or two other languages, usually one other Scandinavian language and English.

There is 100 percent literacy in Iceland, the world's highest. Icelanders pride themselves in their literary heritage. Some of the Icelandic medieval literature has been preserved in the form of manuscripts and is the single original Nordic contribution to world literature from that period. The Icelandic Sagas, realistic and secular novels written in the vernacular in the twelfth and thirteenth centuries deal in great detail with leaders in Iceland, lifestyle, and activities in the tenth and eleventh centuries. Other Icelandic works give detailed identification of Iceland's first settlers, the history of Norwegian kings, and poetry. These works, written by early Icelandic historians and writers, are the only source of information on early Nordic culture, and have been invaluable to latter-day scientists. Some of the manuscripts are preserved in a special library on the university grounds in Reykjavik. The twelfth and thirteenth century literature can be read with ease in its original form by the contemporary Icelander. Icelanders are avid readers, and the annual number of books published per capita in Iceland is greater than anywhere else in the world. The Nobel Prize in Literature for 1955 went to an Icelander, Halldor Kiljan Laxness.

Iceland has traditionally preserved its cultural heritage, and Icelanders have a strong sense of national identity. The Icelandic society has changed rapidly from a primarily rural, agrarian society into a modern urban situation. This process has taken less than fifty years, which means that the society is still in a transitional period with old values mixed with new ones. The family structure is still very strong and close knit.

The capital, Reykjavik (90,000), has an active National Theatre, a symphony orchestra, a National Museum, and is the location of the University of Iceland.

Icelandic names are a matter of some curiosity for foreign visitors. Women keep their maiden names after marriage. There are no family names as such. Children adopt the father's first name with the affix -son (male) or -dottir (female) as a last name (i.e. Bjorn Jonsson, his son's last name would be Bjornsson, and his daughter's last name Bjornsdottir).

Icelanders are generally reserved and quiet, but generous, strong, and individualistic.

III. PRIMARY AND SECONDARY EDUCATION

A. General. Icelandic education can be characterized as highly centralized with an unusually high degree of standardization throughout the primary and secondary school systems. Illiteracy does not exist in Iceland and there is a strong emphasis on creating and maintaining educational opportunities for adults, the handicapped, and rural citizens. The state imposes a strong influence through its careful monitoring of examinations and curricular innovations. All textbooks used in Icelandic primary and secondary schools are locally published. Standards are high (a B.A. degree is generally required for secondary school teaching) and educational reform in Iceland is noticeably slower than in the other Nordic nations. The school day usually runs from 8:00 a.m. to 4:30 p.m. and the school week consists of six days although the five-day week is becoming increasingly popular. The school year is generally from September 15 to June 15.

B. Examinations and Attrition. Compulsory education is through lower secondary school (eight years) and there is virtually no attrition during that period. However, less than 50 percent of the lower secondary school graduates enter the upper secondary school. Less than 20 percent of the age group pass the *studentspróf*, the university matriculation examination. Ninety percent of the students who sit for the *studentspróf* are successful.

Students appear for several state-administered examinations between the sixth and the thirteenth school year. These examinations are outlined below (*see* other parts of this section for generic identification of terms):

sixth year*--primary leaving examination
eighth year*--junior examination--end of compulsory education
ninth year--gymnasium-entrance examination
tenth year--secondary school leaving examination
thirteenth year--matriculation examination

All examinations are "censored" by the state through a spot-check scheme. Examinations are heavily relied on for screening, tracking, and certification of students at the various levels.

C. Grading. Iceland primary and secondary schools utilize a national standardized grading plan. The grade range is from 0 to 10 (low to high) with an overall average of 5 needed for passing on to the next educational level. An individual paper is passed with a 3. To be admitted to the *menntaskóli* (gymnasium) a student must have an average of at least 6. If a student is only slightly under the minimum mark, the state committee may give approval to repeat the examination.

Most examinations are essay-type, although objective items are now appearing. The experimental Hamrahlíð secondary school employs a substantially different system which is described later in this section. Other characteristics of comprehensive schools are in various stages of planning, but their impact will probably not be noticeable for several years.

D. Primary. At age seven, students enter the six-year *barnaskóli* (primary school) after which they sit for the *barnapróf* (leaving examination) and enter *unglingaskóli* (lower secondary school). Because compulsory education is set at eight years, no students are denied the opportunity of entering *unglingaskóli*, although the examination does influence the decision of placement in a "stream." Students are increasingly given permission to enter the *barnaskóli* at age six and it is likely that the earlier entrance age will be standard throughout the country within a few years.

E. Secondary. Students entering the two-year *unglingaskóli* will be placed either in the *bóknámsdeild* (general lower secondary division) or the *verknámsdeild* (vocational lower secondary division), the former being the stream that eventually leads to the *menntaskóli* (gymnasium).

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*Taken by all students.

Completion of the *unglingapróf* (lower secondary school leaving examination) signifies the end of compulsory education. More than half of the students leave *gagnfræðaskóli* (a term used to designate the complete, or four-year, secondary school including *unglingaskóli*) after completing the first two years.

Approximately half of the students who remain in the *gagnfræðaskóli* enter the *landsprófdeild* for one year to prepare for the *landspróf* (gymnasium-entrance examination). The completion of the *landsprófdeild*, therefore, represents nine years of education (6, 2, 1). Most students are successful on the *landspróf* and enter the four-year *menntaskóli* (gymnasium). Students who do not enter the *landsprófdeild* remain in the *gagnfræðaskóli* for an additional two years and sit for the *gagnfræðapróf* (secondary school completion examination).

The *menntaskóli* (gymnasium) consists of two sections. They are the *maladeild* (language section) and the *náttúrufræðideild* (natural science division). Basic subjects are required for students in both streams as specialization does not occur until the second year. After four years in *menntaskóli* the student sits for the *studentspróf* (matriculation examination). Normally, 90-95 percent of the students are successful on that examination. It can be concluded, therefore, that approximately 18 percent of the age group have passed the examination needed for entrance into the University of Iceland.

The secondary school at Hamrahlið is an experimental gymnasium that has adapted a "point system" of course offerings. The system is similar to the credit hour plan practiced by most North American collegiate level institutions. A point is obtained by enrolling in two classroom hours per week per semester. One hundred and thirty-two academic points are needed for graduation, 70 percent of which are in courses common to all program options. Twenty percent of the points are taken in the student's concentration and the remaining ten percent may be electives. A student must present 12 additional points in physical education to graduate.

A notable characteristic of Hamrahlið secondary school is that academic acceleration is encouraged by allowing gifted students to take "combined" courses to achieve the needed points. Some students will complete their *menntaskóli* requirements and sit for the *studentspróf* a year or more before those students who have followed the traditional curriculum. Further, an unsatisfactory performance in one subject on the *studentspróf* may be retaken whereas normally a failure in one subject results in failure of the complete examination.

The *verzlunarskóli* (commercial school) is an institution consisting of six grades with a concentration in business and commercial course work. The *verzlunardeild* (commercial high school division) covers the first four years and the *menntadeild* ("junior college division") covers the final two years. Students generally enter the *verzlunardeild* at the age of 13 or 14 years, or after their seventh year of formal education. The majority of the students leave the *verzlunarskóli* after the high school division, although those who average 6.00 or over in their final examinations are invited to enroll in the "junior college." Upon completion of the final two years, the student sits for the *studentspróf*, the examination required for University of Iceland entrance.

IV. HIGHER EDUCATION

A. The University of Iceland

1. General. The combining of previously established schools of theology, law and medicine with a new faculty of philosophy resulted in the founding of the University of Iceland in 1911. It was the country's only university until the establishment of the Teachers University of Iceland in 1971. The University encompasses faculties representing the fields of law, medicine (including dentistry and pharmacy), theology, engineering, commerce, and philosophy. Teachers' degrees in languages, social science, mathematics/physics, liberal arts, humanities and philosophy are offered by the faculty of philosophy. Icelandic studies is also a department within the faculty of philosophy, offering degrees (Phil/Cand, and Cand/Phil) unique to that department. An interdisciplinary program of studies including courses in law, theology and philosophy unified under the title *Sociology* has recently been established in that faculty. For other faculties and degrees available at the University, please refer to the chart later in this section.

While there is no formalized structure at the University for pursuing advanced graduate degrees, persons engaged in exceptionally meritorious research may on an individual basis be admitted by a faculty to work for a degree similar to a U.S. doctorate (D/Phil). Other than approval by the faculty there are no specific requirements for admission such as previous degrees or indeed even formal education. Very few students have been admitted for this degree. Less than 100 students have received the D/Phil since 1911.

University students are encouraged to spend a year in other countries. Due to the homogeniety of Icelandic culture and its geographically insular position in the world, exposure to other cultures is considered almost essential to a well-rounded education. The retention rate at the University is approximately 65 percent of the students admitted. However, this percentage does not take into consideration students leaving the University and entering other higher educational institutions or merely interrupting their studies.

2. Admission. Admission to the University in most faculties is granted to applicants who have passed the *studentspróf*. Certain minimum grades may be required in specific courses pre-requisite to those faculties unable to accommodate all qualified students. Access to the University has recently been made more flexible with the establishment of a late afternoon or evening program of studies preparing students to take the *studentspróf*. Thus, many individuals whose previous education was terminated or interrupted are no longer denied the opportunity for a university education. At the present time the only facility providing these courses is a progressive *menntaskóli* in Reykjavik.

3. Credits and Grading. Progress toward a degree in the engineering faculty is measured in semester hours with the average lecture course weighted at three and the laboratory courses at four to six semester hours. Other faculties measure courses with points. Three semester hours equal approximately five credit points. It should be noted that the value of a credit point may vary somewhat depending on the faculty. Students are normally tested in each course three times a year with the last test being the most significant. A grade of 5 is required for passing a course. A 5 is the lowest passing grade on a scale from 0 to 10. An average of 5 is required for a degree. Classes are 45 minutes long with the number of meetings per week varying from faculty to faculty.

UNIVERSITY OF ICELAND

Faculty	Years of Study	Degree
Philosophy		
Languages Social Sciences Math/Physics Liberal Arts Humanities Philosophy	3 1/2	B.A. (teacher's degree)
Sociology	3 1/2	B.A.
Icelandic Studies	6-7	*Cand. mag.*
Engineering	4	B.S. *Verkfraedingur* (1st part)
Dentistry	5-6	*Tannlæknir*
Law	5	*Cand/Juris.*
Medicine	6-7	*Cand. med.*
Theology	5	*Cand/theol.*

B. Teacher Training.

1. *Kennaraskóli*. The teacher training college of Iceland has six main divisions with differing admissions requirements and programs of studies of varying lengths.

a) The *almenn kennaradeild* (general teacher training division) which was discontinued in June 1973, admitted students who passed one of the middle school examinations such as the *landspróf*. Those completing the four-year course and receiving the *almennt kennarapróf* (teacher training examination certificate) may teach in the *barnaskólar* (primary schools) and the *unglingaskólar* (lower secondary schools). The *unglingaskóli* represents the final level of compulsory education.

b) Holders of the *studentspróf* (matriculation examination) may enter a two-year program leading to an *almennt kennarapróf* which allows the holder to teach at the compulsory level (*barnaskólar* and *unglingaskólar*).

c) Advanced general training is available to holders of the *almennt kennarapróf* for a one-year course of study in the *menntadeild* (academic division) which later qualifies them to enter Teachers University for further study.

d) *Aðfaranám* (pre-Teachers University) is a two-year course for graduates of the *framhaldsdeild* (upper secondary division--commercial line) and prepares students for admission to the Teachers University, if further study is desired.

e) The *framhaldsdeild* (upper secondary division--commercial line) offers graduates of the *bóknámsdeild* (general division) and the *verknamsdeild* (vocational division) a two-year course. Holders of a diploma from the *framhaldsdeild* are eligible for consideration for admission to the *aðfaranám* (pre-Teachers University program). The *framhaldsdeild* is a program of study in three subjects with a special emphasis in one.

f) The *undirbúningsdeild* (preparatory division for specialized study) is a two-year program for teaching of handicrafts, physical education, music and fine arts, domestic science, etc.

2. Teachers University. A university degree is required to teach in the *menntaskóli*, *miðskóli*, *gagnfræðaskóli*, and teacher-training colleges. Not all subjects taught in these schools are offered on the university level in Iceland, so many teachers receive education abroad.

Teachers University of Iceland is the country's second university and was established in 1971. Students are admitted on the basis of the *studentspróf* and after studies lasting three or four years receive a *kennarapróf* (teacher's certificate) which entitles them to teach in the primary and lower secondary schools. At the present time teachers with the *almennt kennarapróf* cannot gain admission to the University without also having the *studentspróf*.

A Cand./Mag is necessary to instruct in the universities. A number of University teachers hold Ph.D.'s from institutions outside Iceland. Since permanent instructors must be Icelandic citizens, noncitizens receive appointments on a yearly basis only.

C. *Tækniskóli* (technical college) for Advanced Technological Studies. A student with an *unglingapróf* (certificate from the lower stage of the general secondary school) and some practical experience or an apprenticeship has direct access to one of the special divisions. After three years of study the student qualifies as a lower engineer. For students with lesser entrance qualifications, a one-year preparatory course in general advanced theoretical subjects such as mathematics and physics must be satisfactorily completed prior to admission to the three-year program.

V. ICELAND RECOMMENDATIONS

1. Students who have completed the *studentspróf* (matriculation examination) should be considered for admission and the award of up to 1 1/2 academic years of credit (45 semester hours).

2. Students who have completed the third year of the *menntaskóli* (gymnasium) should be considered for admission without credit. Admissions officers are advised to assess the qualitative characteristics of the applicant in light of the level of competition that exists in the first-year class of the admitting institution. Students who complete the third year of the *menntaskóli* may present one or more papers of the *studentspróf*. Such students should receive credit on a course by course basis for papers successfully completed.

3. Students who have graduated from the *verzlunarskóli* (commercial school/junior college) and have completed the *studentspróf* should be considered for admission and the award of credit on the same basis described in recommendation number one. Graduates of the four-year, commercial high school with the *verzlunarpróf* lack sufficient preparation and should not be considered for collegiate study in North America.

4. Students who have graduated with the two-year B.A. should be considered for up to two years of credit on a course by course basis, above that which was recommended for the *studentspróf* under recommendation number one.

5. Students who graduate from the University of Iceland with a 3 1/2 year or a four-year Bachelor of Arts degree, or a four-year engineering degree, should be considered for admission to graduate study in North America.

6. Students who complete the Cand./Mag (five to seven years duration) should be considered for graduate admission with credit allowed in amounts consistent with the practices of the admitting institution.

7. A student completing the *almenn kennaradeild* (general teacher training division) should receive approximately one year of credit if the student enters an elementary teacher-training program in North America. A student holding the *almennt kennarapróf* (teacher certificate) should receive advanced credit on a course by course basis in addition to the advanced credit recommended for the *studentspróf*.

8. A student holding a *kennarapróf* (teacher's certificate) from the Teachers University of Iceland should be considered for admission to graduate standing.

9. Graduates of the three-year *tækniskóli* (technical college), may be considered for freshman admission.

VI. GLOSSARY OF ICELANDIC EDUCATIONAL TERMS

The following three endings should be understood before evaluating educational credentials from Iceland:

deild (as in *verknámsdeild*) is "division"

próf (as in *studentspróf*) is "examination"

skóli (as in *menntaskóli*) is "school"

This glossary in most cases includes only one ending for each term defined.

Adfaranám--Pre-Teachers University program

Almenn--General

Althing--Parliament

Barnaskóli--Six-year primary school usually entered at age seven

Bóknámsdeild--The general division of the lower secondary school

Búnaðarskólar--Schools of agriculture

Flugskólar--Schools of aviation

Fóstruskóli--School of pre-elementary teachers

Framhaldsdeild--Upper secondary division--commercial line

Fræðsluskylda--Compulsory education

Gagnfræðaskóli--The four-year secondary school including the two-year lower and the two-year upper divisions

Garðyrkjuskóli--School of horticulture

Haskoli--University

Handavinnudeild--The handicraft division of teacher training school.

Hjukrunarskóli--School of nursing

Húsmæðrakennaraskóli--Domestic science teacher training school

Iðnskóli--Vocational school

Kennaraskólar--Teacher training colleges

Kvöldskólar--Evening institutes

Landspróf--Gymnasium-entrance examination taken after three years of secondary school

Landsprófdeild--The one-year division that follows the two-year lower secondary school. Prepares student for the gymnasium-entrance examination

Listaskólar--Art schools

Maladeild--Gymnasium language division

Menntadeild--Academic division

Menntaskóli--Four-year gymnasium

Miðskoli--Intermediate school

Myndlista--og handioaskoli--School of arts and crafts

Námskeið--Course

Náttúrufræðideild--Gymnasium natural science division

Samvinnuskóli--Cooperative commercial schools

Studentspróf--University matriculation examination

Stýrimannaskóli--School of navigation

Tækniskóli--School of advanced technology

Tannlæknir--Degree in dentistry

Undirbúningsdeild--A special preparatory division

Unglingaskóli--The lower secondary school that represents the final two years of compulsory education

Vélskóli--Marine engineering school

Verkfrædingur--First part of degree in engineering

Verknámsdeild--The vocational division of the lower secondary school

Verzlunarskóli--Secondary commercial school

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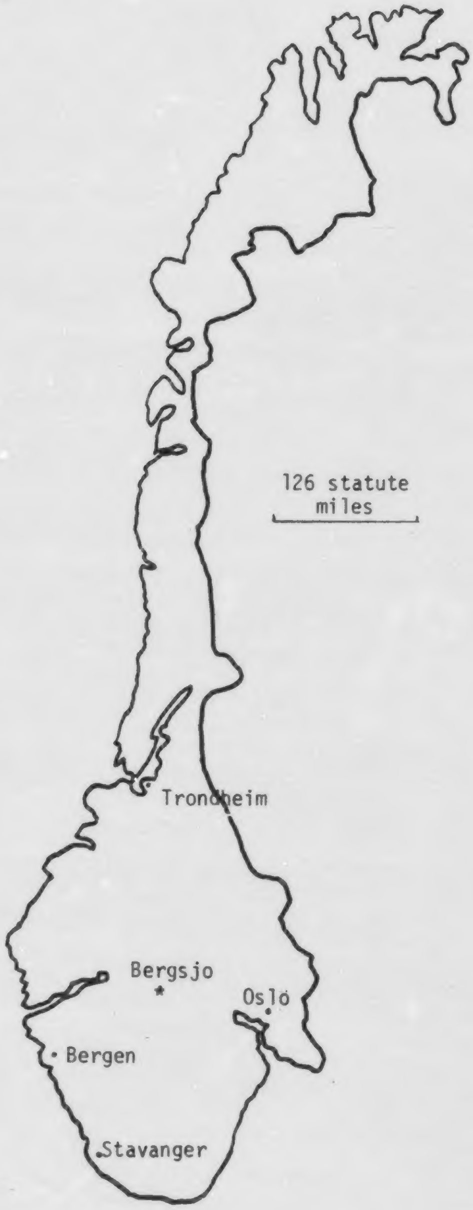

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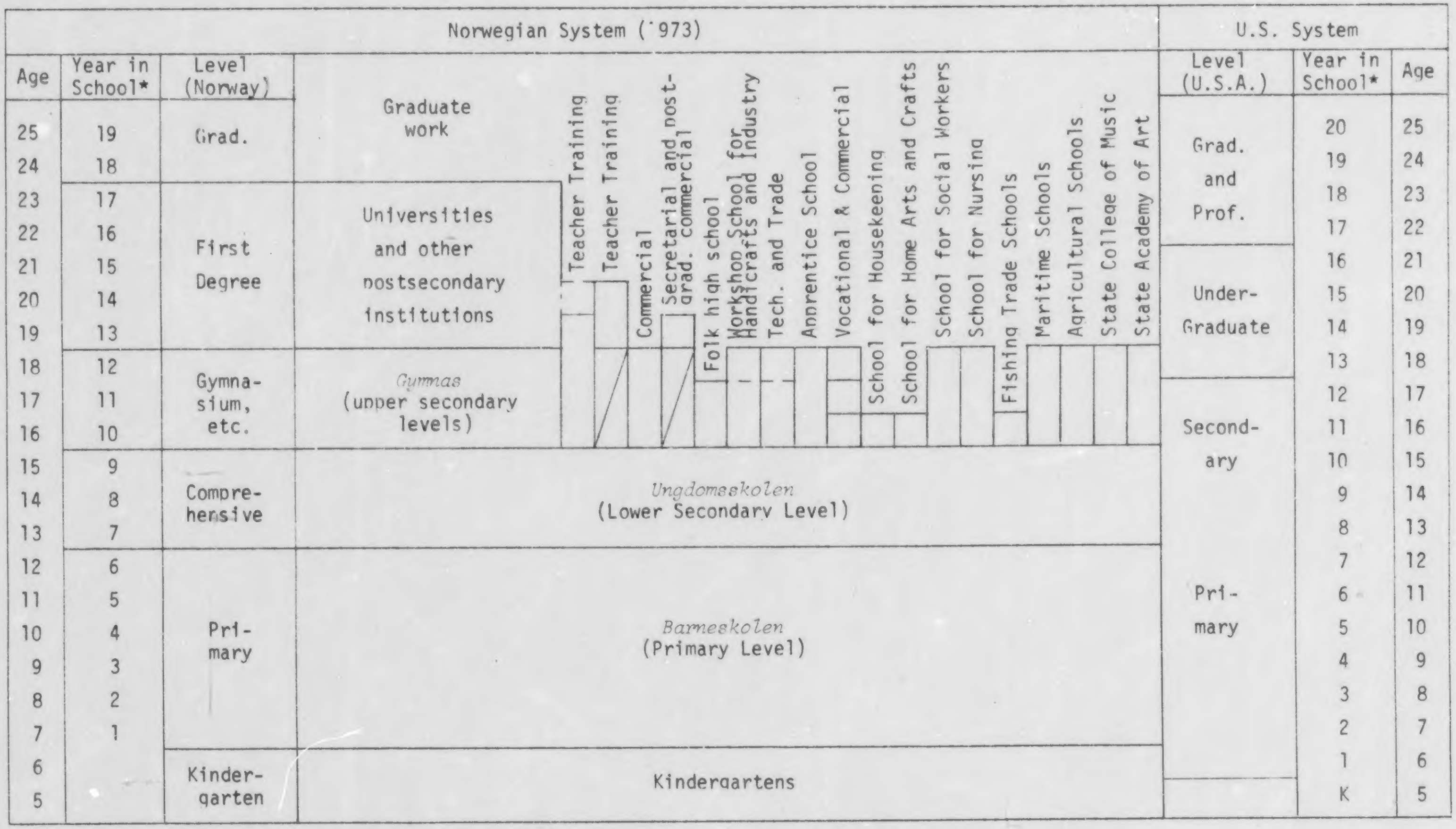
Editor's note: Special recognition is extended to Dr. Olav Hove who prepared for the Workshop participants a paper on education in Norway. The 16-page document was an update of his previous book, *The System of Education in Norway* (1968).

I. CHART OF THE NORWEGIAN EDUCATIONAL SYSTEM


Norwegian System (1973)
U.S. System
Age
Year in School*
Level (Norway)
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15
14
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12
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10
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8
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19
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8
7
6
5
4
3
2
1
Grad.
First Degree
Gymnasium, etc.
Comprehensive
Primary
Kindergarten
Graduate work
Universities and other postsecondary institutions
Gymnas (upper secondary levels)
Teacher Training
Teacher Training
Commercial
Secretarial and post-grad. commercial
Folk high school
Workshop School for Handicrafts and Industry
Tech. and Trade
Apprentice School
Vocational & Commercial
School for Housekeeping
School for Home Arts and Crafts
School for Social Workers
School for Nursing
Fishing Trade Schools
Maritime Schools
Agricultural Schools
State College of Music
State Academy of Art
Ungdomsskolen (Lower Secondary Level)
Barneskolen (Primary Level)
Kindergartens
Level (U.S.A.)
Grad. and Prof.
Under-Graduate
Secondary
Primary
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*Norwegian students normally enter the first year of *barneskolen* midway between the ages of seven and eight while U.S. students normally enter the first grade near the date of their sixth birthday.

II. BACKGROUND--General and Education

A. General. Norway occupies the western and northernmost part of the Scandinavian peninsula. It is bordered on the north by the Arctic Ocean and on the northeast by Finland and Russia. Sweden borders on the east, with Skagerak on the south and southwest. The North Sea lies to the west.

Nordkapp occupies the northernmost point on the mainland, with Lindesnes at the southernmost point. If one could put a pin on a map of Europe at Lindesnes and turn the Norwegian part of the map upside down, Nordkapp would reach to Rome. On the narrowest part of the country, less than ten miles separate the bottom of the Ofotfjord from the Swedish border. In this long and narrow country, broken up into many sections and territories by rugged mountain ranges, forest lands and fertile valleys, live approximately four million people, most of whom belong to the same ethnic group. The 1,700-mile coastline displays fjords, bays, inlets, and thousands of islands.

About one-third of the country lies within the Arctic Circle with its midnight sun and midwinter darkness. In spite of this location the climate remains moderate. The Gulf Stream follows the Norwegian coast, keeping the harbors open the year around. Winters are milder than in Minnesota, and summers are cooler. Oslo, Stockholm, and Leningrad lie approximately the same distance from the pole, but while Oslofjord remains navigable in the winter, ice covers the Gulf of Bothnia. Thus, iron ore from Sweden must be transported by rail to the Norwegian harbor of Narvik for further shipment by boat.

Four hundred miles to the north lies the archipelago of Svalbard, Spitsbergen being the largest island. Norway's sovereignty of this coal rich territory was recognized in 1920, and in 1925 it became a part of Norway officially.

Norway derives much of its income from a few industries. Fishing and forestry have always been an important source of income. Norwegians have been great seafaring people from the time of the Vikings, and today they have the fourth largest merchant marine in the world. Hydroelectric plants produce more electricity per capita than any other country in the world. Railroads operate electrically, and the growing and varied manufacturing enterprises make use of this comparatively inexpensive source of energy. Oil strikes have been made in the Norwegian Sea, as well as along the coast. Norway is currently in the process of becoming an oil-producing country.

A number of earldoms and small kingdoms were united in the ninth century by the first king, Harold Fairhair. The date for the decisive battle has been set at 872 A.D., and in 1972 the eleven hundred years of existence as a country was celebrated. At its medieval heights Norway ruled over Iceland, Greenland, the Faeroe Islands, the Shetlands, and the Orkneys.

The royal male line died out, and Norway entered into a union with Denmark and Sweden. Queen Margaret of Denmark united the three countries in the Union of Kalmar in 1397. Sweden left the union in 1523, while the union between Denmark and Norway lasted until 1814. Government officials in Norway were either Danes or Norwegians educated in Denmark. The official written language was Danish.

The united kingdom of Denmark-Norway joined the war on the side of Napoleon, while Sweden joined on the side of England. In the piece treaty which followed (Kiel, 1814) the Danish king was punished by losing Norway which now was united with Sweden. In the settlement Iceland, Greenland, etc., were forgotten, and they stayed with Denmark.

Norway held a constitutional assembly at Eidsvoll on May 17, 1814, and adopted the freest constitution in Europe. It resembled the constitution of the United States and contained ideas coming from the French Revolution as well. It stands today as the constitution of the land (with a number of amendments). May 17 marks the celebrated national constitution day.

During the union with Sweden the two countries had separate legislative branches of government but the same king. A parliamentary form of government was introduced in Norway in 1884.

The union with Sweden came to an end in 1905. Prince Carl of Denmark, who was married to Princess Maud of Great Britain, became King Haakon VII of Norway and ruled as a constitutional monarch until his death in 1957. His son, Olav V, currently reigns as king.

Norway, neutral during World War I, attempted to remain neutral in World War II. However, on April 9, 1940, the Germans invaded the country. After weeks of resistance the king and his government left in June 1940 for England and continued a government-in-exile there. This government controlled one of the largest and perhaps the most modern merchant marine in the world. This fleet with many modern oil tankers was invaluable to the allied warfare. The Royal Norwegian Air Force maintained its training camp in "Little Norway" near Toronto, Canada, and an army received training in Scotland. Earnings from the merchant marine provided funds for wartime training.

After the cessation of hostilities the king returned to Oslo on June 7, 1945, and the democratic government continued. After war damage was repaired, the country continued to accelerate progress which had been interrupted by the war. The literacy rate rose to practically 100 percent, the standard of living increased, and as in the other Scandinavian countries, social legislation became highly developed.

In 1972 a plebiscite was held to determine whether or not Norway should join the European Common Market. Such referendums are under the constitution purely advisory, the *storting* (parliament) having the final say. In spite of the fact that the major parties, the *Arbeiderpartiet* (Labor Party) and the *Høyre* (Conservative Party), strongly favored membership in the European Common Market, the people voted against it. The Labor government had made the issue a "cabinet question" under parliamentary rule, and as a result of the vote the Labor government resigned. After the parliamentary elections in September 1973, Labor again formed the cabinet.

The formula worked out in the sixteenth century, *cujus regio, ejus religio* ("whose is the government, his is the religion"), became accepted by several European countries. The idea of separation of church and state as expressed in the first amendment to the constitution of the United States was not practiced in Europe. The Evangelical Lutheran Church became the official church in the constitution. No statement existed in the constitution on religious liberty, and the stipulation that "Jesuits must not be tolerated" remained there until Norway signed the United Nation's Declaration on Human Rights in the 1950s. Church and state officials have, however, as a general rule been rather tolerant toward "dissenters," with some glaring exceptions, especially in the first part of the nineteenth century. In later years denominations other than the Lutheran have been recognized officially and their pastors authorized to solemnize marriages. Some 96 percent of the population belong to the established church, although nowhere near that number actually attend church regularly.

B. Education. Attempts were made to establish schools before the early 1800s, but they were, for the most part, unsuccessful. The church had established some schools in the middle ages and certain cities had some practical schools in the early 1800s.

The Constitution of 1814 gave the king the power to establish certain divisions of the government, and the First Department for Ecclesiastical and Education Affairs was established, being the forerunner of the present *Kirke og Undervisningsdepartmentet* (Ministry of Church and Education). Since that time, each facet of education has come about as a separate act of the *storting* (parliament). Not only are new schools and new programs established in this way, but any substantial change or modification requires an act in *stortinget*.

The Primary School Act of 1827 established the first such legislation. It provided compulsory schooling for all children. In 1889, the period of compulsory school was established at seven years. The school system of the entire country had to be reconstructed after World War II and a major piece of legislation was the Experiment in Education Act of 1954. Through the Primary Schools Act of 1959, regarded as experimental, local authorities received power to extend the period of compulsory schooling to nine years.

Another major piece of legislation in 1951 established the special schools for the handicapped--deaf, blind, retarded, speech handicapped, and maladjusted.

Schools for handicrafts and industry must also be mentioned. It would appear that certain of these "practical" schools were probably those mentioned as existing in the early 1800s. The need for such schools was fully recognized through an Act of 1940; this act provides for formal training either before or during apprenticeship training in such widely varied areas as homemaking, fishery, navigation, engineering technology, and agriculture, to mention only a few.

The organization of the Norwegian system of education has been clearly outlined by Olav Hove in his booklet written in English, *The System of Education in Norway* (1968). The author very kindly updated this book in a 16-page mimeographed supplement distributed to the participants in the Scandinavian Workshop.

Briefly, elementary schools are sponsored by municipalities, secondary education by *fylker* (sometimes translated, counties), and higher education by the state. The system of financial support is somewhat involved in that the state contributes financially to the operation of schools on all levels. Free tuition exists all the way, and further assistance is available in the form of grants and loans.

Olav Hove examines the organization of the *Kirke og Undervisningsdepartmentet* (Ministry of Church and Education) to some extent. Perhaps one can say, by way of simplification, that all schools at all levels are under the supervision of the *Kirke og Undervisningsdepartmentet*, except for some specialized vocational or professional schools that come under the administration of their respective ministries. Since World War II there has been a tendency to "assemble as many education institutions as possible under the aegis of the Ministry."* In the Ministry of Church and Education are a number of councils, and consultants and traveling inspectors see to it that departmental advice and instructions are understood and followed.

A former Minister of Church and Education, Nils Hjelmtveit, called the Norwegian system the "unity" system. He emphasized that all education be based on the completion of the *folkeskole* (elementary school) which then consisted of seven years. All schools had basically the same curriculum with practically no elective courses. In other European countries pupils planning for higher education would leave the

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*Hove, Olav. *The System of Education in Norway*. Oslo: Johan Grundt Tanum Forlag, 1968. 63 p.

elementary school at an early stage to enter schools more specifically devoted to preparing students for university admission. In Norway everyone completed *folkeskolen*, regardless of future plans. Now *barneskolen* (six years of elementary education) and *ungdomsskolen* (three years of lower secondary education) are compulsory and basic for further education. There are some options in the first two years of *ungdomsskolen*. In the third year there are various alternatives. Thus the unity school system continues.

An interdependent cohesion surfaces among different kinds of schools. This is practical in a country with Norway's geography, resources, and homogeneous population. The tremendous variety of schools with numerous educational associations and regional and professional accrediting agencies that exists in the United States would not be possible in Norway.

While private schools are not borbidden, a few exist. In fact, if qualified under existing legislation, they may receive substantial aid from tax funds. Such aid is given to the schools themselves as well as to individual students, yet there are only three private gymnasiums in the country with full examination rights: Kristelig Gymnasium in Oslo, Tyrifjord Høyere Skole in Ringerike, and Danielsen Skole in Bergen.

III. PRE-UNIVERSITY EDUCATION

A. General. Primary and secondary schools, as well as most vocational schools are controlled by the *Kirke og Undervisningsdepartmentet* (Ministry of Church and Education) and administered through specific divisions reporting to the Schools Department of the Ministry. Another department, that of arts and sciences, deals with issues relative to higher education. The day-to-day administration of the school system is delegated to the regional directorates acting on behalf of the state and to the local school boards. The local boards appoint teachers for the primary schools and recommend to the Ministry candidates for appointment as principals and teachers in the secondary schools.

The actual financing of the school system rests almost entirely on the public, supported jointly by community, county, and state authority. State schools operate entirely by state funds and have their incomes fixed by the *storting* (parliament) for each school year.

B. Pre-Elementary, Elementary, and Secondary Education

1. Pre-Elementary. A number of private and municipal kindergartens are available to children between the ages of three and six. Kindergartens are eligible for municipal and/or state grants if they reach a certain standard. The Primary Schools Act of 1959 also authorizes the creation of pre-school classes for six-year olds in conjunction with the junior schools (grades one through six). Children in kindergartens partake in activities which are suitable to their age and stage of development.

2. Elementary. Elementary education today consists of *grunnskolen* (nine years of compulsory education in a basic school). Most children begin school at the age of seven. The *grunnskolen* consists of two stages: the first six years constituting the *barneskolen* (primary level) and the subsequent three years, the *ungdomsskolen* (lower secondary level). The *grunnskolen* has an equivalent curriculum content to United States and Canadian schools at the same level. English is introduced in the fourth or fifth year and is an obligatory subject throughout the remainder of the nine-year school program. The nine-year school terminates with an examination in four major subjects, although many students are examined only in two. The completed basic school is the foundation on which all further education, whether academic or vocational, builds.

Prior to the Primary Schools Act of 1959, all elementary education consisted of seven years of schooling and resulted in the elementary school certificate. Upon graduation students entered the three-year *realskole*. Upon completion of the second year of the *realskole*, students could enter the first year of the three-year gymnasium (also referred to as *gymnas*). Many students completed the three-year *realskole* and after working entered the first year of the gymnasium. The three-year *gymnas* (singular and plural forms of the term, *gymnas*, are the same) lead to the *examen artium* which is essentially the same as the present day *examen artium* or *eksamen fra økonomisk gymnas*. For practical purposes, the two examinations will be referred to as secondary terminal examination.

3. Secondary. Upon completion of nine *(grunnskole)* or ten *(realskole)* years of schooling, Norwegian students may enter the *gymnas* (both academic and commercial), the technical school (after work experience), which may lead to university-level education, the Folk high school, a regional college (after job training), or a vocational school which offers training in over 80 occupations. Each of these secondary-level programs and postsecondary programs shall be described separately.

The *gymnas* course (both academic and commercial) consists of three years and leads to the university entrance examination known as *examen artium*, or the secondary terminal examination. Within the existing pattern of academic *gymnas*, eight possible areas of concentration (*linjer*) may be studied. (Continued on page 64.)

TABLE I. SCHOOLS, TEACHERS, AND PUPILS

School and Year	Number of Schools	Full-time Teachers			Pupils and Students		
		Total	Males	Females	Total	Males	Females
Barneskoler (primary schools, lower stage)							
1967-68	3,290	17,223	7,683	9,540	403,928	206,890	197,038
1968-69	3,170	16,900	7,393	9,507	387,042	198,038	189,004
1969-70	3,121	16,867	7,340	9,527	390,046		
1970-71	3,060	16,922	7,279	9,643	385,628		
Ungdomsskoler (primary schools, upper stage)							
1967-68	306	5,801	3,876	1,925	82,575	41,867	40,708
1968-69	427	7,624	4,974	2,650	115,639	58,887	56,752
1969-70	494	9,335	6,040	3,295	129,261	65,855	63,406
1970-71	577	11,132	7,105	4,027	150,254	76,576	73,678
Framhaldsskoler (continuation schools)							
1967-68	506	1,413	955	458	22,721	11,669	11,052
1968-69	432	1,181	811	370	19,404	10,064	9,340
1969-70	334	897	625	272	14,664	7,673	6,991
1970-71	232	581	407	174	9,595	5,002	4,593
Spesialskoler (Special schools for handicapped children)							
1967-68	67	602	302	300	2,945	1,719	1,226
1968-69	76	721	351	370	3,029	1,820	1,209
1969-70	80	794	379	415	3,201	1,906	1,295
1970-71	85	845	407	438	3,317	2,016	1,301
Folkehøgskoler (Folk high schools)							
1968-69	73	523	352	171	6,126	1,961	4,165
1969-70	78	570	391	179	6,720	2,156	4,564
1970-71	79	583	399	184	6,916	2,142	4,774
1971-72	80	606	410	196	7,078	2,122	4,956
Realskoler og gymnas (secondary schools)							
1968-69	293	4,942	3,824	1,118	91,154	47,309	43,845
1969-70	272	4,562	3,576	986	83,804	43,495	40,309
1970-71	260	4,324	3,414	910	76,949	39,948	37,001
1971-72	220	4,202	3,344	858	72,464	37,766	34,698
Fag og yrkesskoler (vocational schools)							
1967-68	710	5,635	4,263	1,372	78,914	47,808	31,106
1968-69	714	5,805	4,366	1,439	82,111	49,567	32,544
1969-70	711	6,139	4,567	1,572	84,952	51,157	33,795
1970-71	731	6,593	4,857	1,736	89,899	54,213	35,686
Universiteter og høgskoler (universities and equivalent institutions)							
1968-69	8	2,317[a]	2,079[a]	238[a]	24,115	17,901	6,214
1969-70	10[b]	2,422	2,173	249	27,483	19,952	7,531
1970-71	10[b]	2,673	2,375	298	30,461	21,887	8,574
1971-72	10[b]				33,016	23,166	9,850
Skoler og universiteterialt (schools, universities, etc., total)							
1967-68	5,272	38,819	23,642	15,177	717,761	379,757	338,004
1968-69	5,193	40,013	24,150	15,863	728,620	385,547	343,073
1969-70	5,098	41,586	25,091	16,495	740,131		
1970-71	5,034	40,980[c]	23,868[c]	16,112[c]	753,019		

Notes:

a. Excluding professors II, associate professors II and university scholarshipholders, respectively 38, 43 and 301 persons.

b. Including the College of Architecture and State College of Physical Education and Sport.

c. Excluding universities.

TABLE II. PUPILS BY TYPE OF SCHOOL AND AGE AND AS PERCENTAGE OF REGISTERED POPULATIONS AUTUMN 1970

Age at December 31, 1970	Type of School							Registered Population at December 31, 1970	Pupils as Percentage of Registered Population
	Total	Primary Schools	Special Schools	Folk High Schools	Secondary Schools	Vocational Schools	Universities and Equivalent Instit.		
6 years	1,090	1,017	73					64,326	1.7
7 "	59,825	59,685	140					62,181	96.2
8 "	60,726	60,551	175					60,938	99.7
9 "	61,039	60,849	190					61,117	99.9
10 "	60,313	60,093	220					60,514	99.7
11 "	61,369	61,099	270					61,582	99.7
12 "	61,293	60,953	340					61,504	99.7
13 "	61,039	60,573	389		77			61,440	99.3
14 "	61,951	56,727	409		4,797	18		62,488	99.1
15 "	58,113	47,440	371	2	9,218	1,082		61,678	94.2
16 "	45,328	14,826	324	364	19,808	10,006		60,763	74.6
17 "	36,622	1,521	198	3,388	18,331	13,184		61,224	59.8
18 "	28,066	143	98	1,828	14,690	11,141	166	60,392	46.5
19 "	19,244		48	834	6,530	9,899	1,933	53,380	33.0
20 "	14,006		10	267	1,850	8,946	2,933	59,777	23.4
21 "	12,238		10	104	484	8,005	3,635	60,377	20.3
22 "	11,055		9	53	247	6,693	4,053	62,224	17.8
23 "	9,469		4	22	193	5,031	4,219	64,087	14.8
24 "	7,530		3	14	149	3,959	3,405	67,069	11.2
25 & over	22,692		36	40	575	11,935	10,106		
Total	753,008	545,477	3,317	6,916	76,949	89,899	30,450		

TABLE III. EDUCATION IN NORWAY SINCE 1896: PRIMARY AND SECONDARY

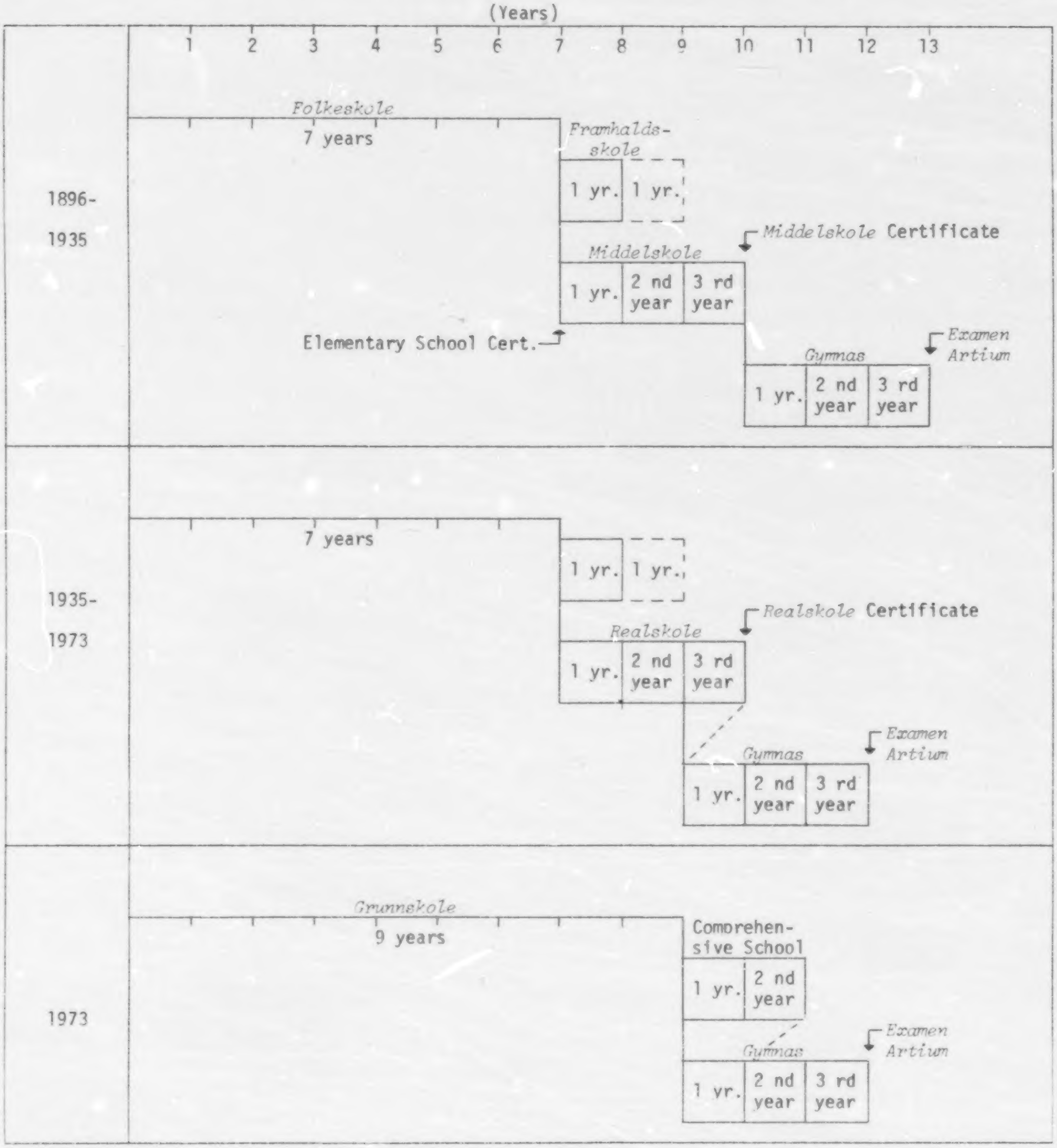

(Years)
1 2 3 4 5 6 7 8 9 10 11 12 13
1896-
1935
Folkeskole
7 years
Framhaldsskole
1 yr.
1 yr.
Middelskole Certificate
Middelskole
1 yr.
2 nd year
3 rd year
Elementary School Cert.
Examen Artium
Gymnas
1 yr.
2 nd year
3 rd year
1935-
1973
7 years
1 yr.
1 yr.
Realskole Certificate
Realskole
1 yr.
2 nd year
3 rd year
Examen Artium
Gymnas
1 yr.
2 nd year
3 rd year
1973
Grunnskole
9 years
Comprehensive School
1 yr.
2 nd year
Examen Artium
Gymnas
1 yr.
2 nd year
3 rd year

TABLE IV. THE THREE-YEAR *GYMNAS*, WEEKLY TIME TABLE

	Physical Science Side			Biological Science Side			Modern Language Side			Latin Side[1]			Old Norse Side			Social Side			Musics Side			Economics Side		
School Year	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Religion	1	1	1	1	2	0	1	1	1	1	1	1	1	1	1	1	1	1	1	2	0	-	-	-
Norwegian	5	5	6	5	5	6	5	5	6	5	5	6	5	4	5	5	5	5	5	5	6	4	4	5
Folklore	-	-	-	-	-	-	-	-	-	-	-	-	1	1	0	-	-	-	-	-	-	-	-	-
Old Norse	-	-	-	-	-	-	-	-	-	-	-	-	4	5	5	-	-	-	-	-	-	-	-	-
English	4	4	0	4	4	0	5	7	8	4	4	0	5	7	7	4	4	5	4	4	5	4	3	5
German	3	0	0	4	0	0	4	5	0	3	0	0	3	0	0	3	4	4	3	3	0	5	4	0
French	4	4	4	0	4	4	4	5	7	0	5	6	0	4	3				4	4	4	0	4	5
Latin	-	-	-	-	-	-	-	-	-	6	8	9	-	-	-	-	-	-	-	-	-	-	-	-
History	2	3	5	3	2	5	2	3	5	2	3	5	2	3	5	2	3	3	2	3	5	2	2	4
History, special course	-	-	-	-	-	-	-	-	-	-	-	-	0	1	1	-	-	-	-	-	-	-	-	-
Sociology	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	8	9	-	-	-	-	-	-
Geography	3	0	1	3	0	0	3	0	0	3	0	0	3	0	0	4	0	0	0	0	3	3	2	0
Biology	0	2	0	3	3	3	0	0	4	0	0	4	0	0	4	0	0	3	0	0	3	0	0	2
Chemistry	4	0	0	3	3	4	4	0	0	4	0	0	4	0	0	3	0	0	3	0	0	3	0	0
Physics	0	6	6	0	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mathematics	6	5	7	5	5	5	4	5	0	4	5	0	4	5	0	4	5	0	4	5	0	5	6	0
Mathematics, optional subjects	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Music	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	6	6	-	-	-
Musical exercise	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-
Rhythmics and dance ..	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-
Law	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	2	2
Social economics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	2	4
Business administration and economics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	5	7
Typewriting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0	0
Physical training	3	4	4	3	4	4	3	4	4	3	4	4	3	4	4	3	4	4	2	2	2	2	2	2
Singing	1	1	1	2	0	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-
Aesthetics, optional subject	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	-	-	-	-	-	-
Total ..	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36

Note:

1. Students on the Latin Side may also take Greek, in which case the number of instruction periods per week in this subject is 0-6-6 for the three years, respectively. This would mean a corresponding reduction in the number of lessons in English and French in the second year and in French, Latin and biology in the third year.

Within the Norwegian school system the *handelsgymnas* (commercial gymnasium), the same as economics *linjer* of the academic *gymnas*, offers the highest secondary level education in mercantile subjects. The main course consists of three years and is regarded on a par with areas of concentration within the academic *gymnas*. The commercial gymnasium also provides two one-year courses for students who have passed the *examen artium*, or the secondary terminal examination in another concentration. A popular one-year program for young women is the secretarial course. The chief emphasis in the program is language study (English, German and French) together with shorthand and typewriting. The other one-year program, which brings the *examen artium* holder to the same level as a commercial *gymnas* graduate, emphasizes economic subjects such as social economics, business administration and law. Both programs result in certificates being awarded to graduates.

Currently there exists in Norway 20 *gymnas* which do not follow the traditional curriculum. These schools, known as *reform-gymnas* offer only three *linjers*: natural science, social science, and foreign languages. The curriculum consists of compulsory subjects, subjects in one's specialization, optional complementary subjects, and independent study periods. It was hoped by 1980 to have all *gymnas* in Norway follow this system. Like the traditional *gymnas*, *reform-gymnas* students write the secondary terminal examination.

The *gymnas* course concludes with a written examination (secondary terminal examination, also known as *examen artium*) in the most important subjects taken within a concentration. For most students this consists of normally four written examinations and three oral examinations as chosen by the *Gymnasrådet* (State Council for Secondary Education). The same examinations are administered simultaneously throughout the country and are marked on a national basis. A pass in the secondary terminal examination provides the general entrance qualification to a university, but some faculties and universities favor candidates from a particular concentration. At present, there are approximately 30 schools that do not have the right to administer state examinations. Students from these schools as well as individuals who have not attended formal schooling must sit for all 13 examinations (oral and written) in order to receive their secondary terminal examination and be considered for university entrance. Such candidates will be noted on the transcript received from a school with examination rights as *privatist*. The secondary terminal examination certificate indicates examination results as well as teacher-reported results for students from schools that have the right to administer state examinations.

The system of education in Norway is presently under a detailed review. The visitation team was informed that the present 36 period week for a *gymnas* student may be reduced in 1974 to 30 periods per week. There are implications for admissions personnel in the United States and Canada and for universities in Norway. It is unknown if standards of education will be reduced or if the number of subjects completed will decrease.

4. The Folk High School. The *Folkehøgskole* (Folk high school) offers a general education lasting up to two years to those students who have reached the age of 17 but have completed only seven or nine years in a basic school. The standard curriculum includes Norwegian, English, social studies, arithmetic, religion, music, arts and crafts. Electives offered include philosophy, sociology, literary studies as well as a series of vocational subjects. Planned as a terminal education, graduates of the Folk high school often continue into more rigid academic programs.

C. Technical and Vocational Education

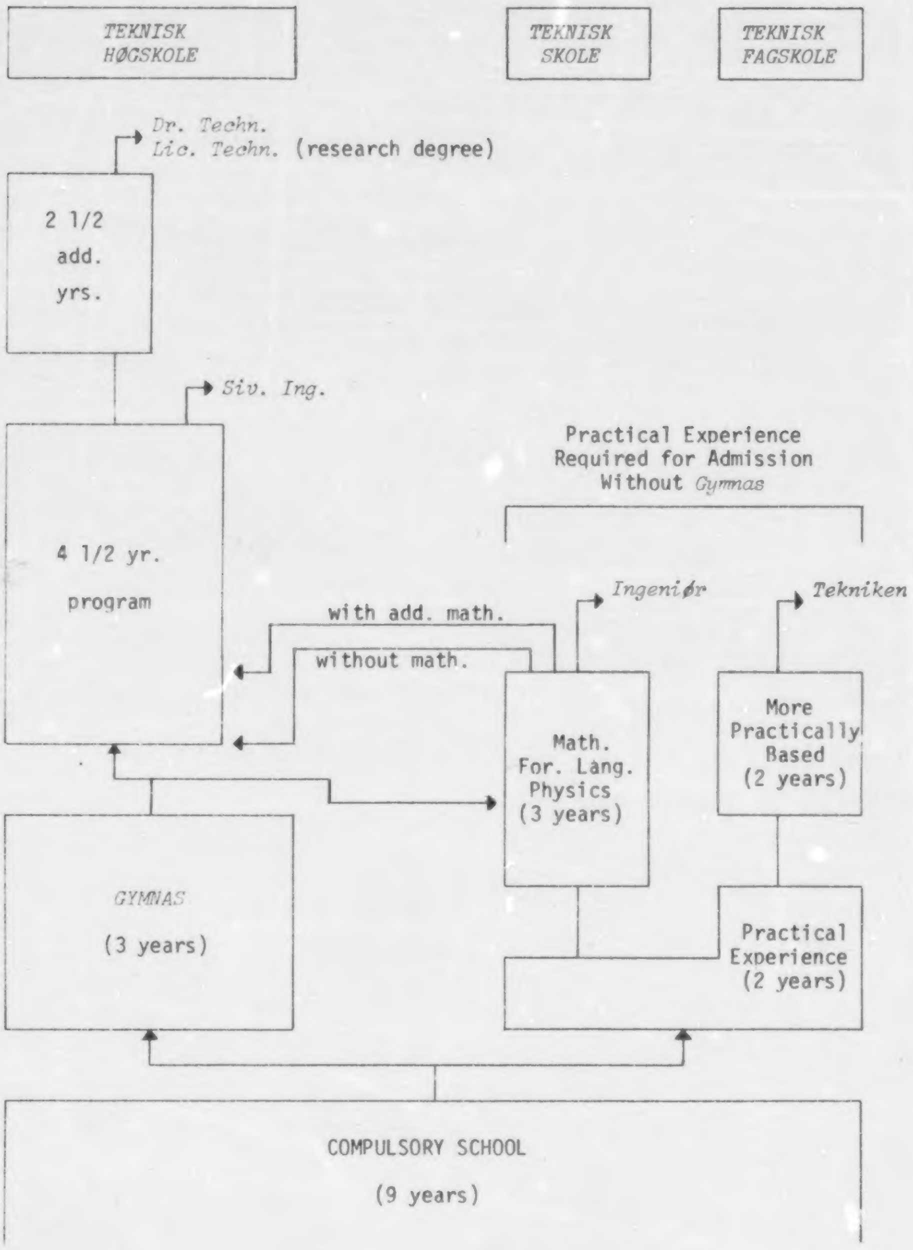
1. The Technical Colleges. *Tekniske skoler* offer three-year programs based on the nine-year compulsory school. Entry into the three-year program is gained only after one year of practical experience. No such practical work is required of the student who has the *examen artium*. The first year of the three-year program is devoted to work in mathematics, foreign languages, and physics, subjects normally associated with *gymnas*. The last two years lead to the title, *ingeniør*, a skilled individual, but of lesser theoretical capabilities than his university counterpart, *sivilingeniør*.

It is now possible for a graduate of a *teknisk skole* to be accepted into *teknisk høgskole* at the University of Trondheim. Without additional mathematics, the student will be accepted at the beginning point of the 4 1/2-year program. With additional mathematics, acceptance is given at the second-year level, with some credit given in advanced courses for work already completed.

Programs of study at *teknisk fagskole* are more practically based and lead to the title, *tekniker*. These are terminal programs with entry being gained after two years of practical experience. Lasting only two years, the courses are not based on the same mathematics-physics-foreign language training required for *teknisk skole*.

As of 1973, there are 13 of these kinds of schools in Norway.

ACADEMIC RELATIONSHIPS BETWEEN AND AMONG VARIOUS LEVELS OF NORWEGIAN TECHNICAL EDUCATION


TEKNISK HØGSKOLE
TEKNISK SKOLE
TEKNISK FAGSKOLE
Dr. Techn.
Lic. Techn. (research degree)
2 1/2 add. yrs.
Siv. Ing.
4 1/2 yr. program
Practical Experience Required for Admission Without Gymnas
Ingeniør
Tekniken
with add. math.
without math.
Math. For. Lang. Physics (3 years)
More Practically Based (2 years)
GYMNAS (3 years)
Practical Experience (2 years)
COMPULSORY SCHOOL (9 years)

2. The Vocational Schools. The vocational schools provide basic education and specialist training for the majority of jobs. Courses varying in length from six months to three years, combine theoretical and practical training. Although terminal, these schools provide a high level of expertise in knowledge unavailable elsewhere within the educational system. Many of the practical schools are tied closely to a long-standing system of apprenticeships. Where such apprenticeship is ~~required,~~ the period of apprenticeship can be reduced with concurrent attendance at a vocational school.

The following chart indicates the type of vocational schools along with pertinent characteristics. Although most of the schools require completion of *ungdomsskoler* (basic school) for entrance (nine years), many admit with fewer years of schooling and still others require the *examen artium*. In order not to confuse admissions personnel, the chart includes descriptions of schools which are of a post-secondary level, e.g., the School of Journalism. One should also use this chart in consultation with the recommendations given later in this section which considers programs such as art and music. These subjects are not studied in Norwegian universities, but they are available in North American colleges and universities.

Unlike North American education, a separate school is established when a need is developed, rather than adding to an already-established institution.

NAME	PURPOSE	DURATION OF TRAINING	ADDITIONAL COMMENTS
Vocational Training Schools for Handicrafts and Industry	Training for tradespeople and skilled workmen. Sixty-five trades	1-3 yrs.	
Workshop Schools	Training in trade and industrial techniques	1 yr.	Training can extend to 3 years if apprenticeship is not available elsewhere
Apprentice Schools	As per title	3 yrs.	
Elementary Technical Schools	Elementary level of training for building trades' employees, factories, and industrial concerns	1 yr.	
Technical Trade Schools	A more advanced and specialized training	2 yrs.	Entrance examination required
Schools for Home Arts and Crafts	As per title for males	7-10 months	
Schools for Arts and Crafts for Women	As per title	up to 1 yr.	
Schools for Housekeeping	As per title	5 or 10 months	Often a pre-requisite for entrance into Schools of Nursing, etc.
Schools for Commercial and Clerical Apprentices	For pupils taking up careers in commerce and office work	1 yr. (day) 2-3 yrs. (evening)	
Commercial Schools	Diploma in mercantile trading	6 mos.-1 yr.	Usually private organizations
Seaman's Schools	Schools of nagivation, marine engineering, cooks and stewards	less than 1 yr. to 3 yrs.	
Fishing Trade Schools	As per title	up to 1 yr.	
Schools of Agriculture	As per title	3 mos.-1 1/2 yrs.	Not to be confused with the Norwegian College of Agriculture

Continued

NAME	PURPOSE	DURATION OF TRAINING	ADDITIONAL COMMENTS
Schools for Nurserymen	As per title	14 months	Previous practical experience required
Forestry Schools	As per title	1 1/2 yrs.	Previous experience required
Dairy Schools	Dairy technicians	1 1/4 yrs.	
Schools of Nursing	As per title	3 yrs.	
	Occupational therapy	2 yrs.	Extensive previous experience required
	Physiotherapy	2 yrs.	The *examen artium* required
School for Social Workers*	As per title	2 1/2 yrs.	
School of Librarianship*	For public libraries	3 yrs.	*Examen artium* required
	For a university library	-	Requires a degree
School of Journalism*	As per title	1 yr.	*Examen artium* required
School of Theatre*	Actors and actresses	3 yrs.	
Schools of Arts and Crafts*	Art, advertising, interior decorating	3 yrs.	Very limited enrollment
State Academy for Visual Arts*	For dedicated prospective artists	3-4 yrs.	Very prestigious, entered after School of Arts and Crafts
Other schools	Railway employees, postal service, hotel, telegraph, custom officials, etc.	varies	
Music Conservatories*	Admission is not dependent upon academic prerequisites but on specific levels of musical competence. Only recently has music been introduced as an academic field of study in the university. Primary attention, however, is focused on the subject in its cultural-historical context.		

D. Teachers Colleges. *Lærerskoler* (teachers colleges) are the institutions designated by law to prepare teachers for the elementary school. Academic admission requirements were the former seven-year *folkeskole* (elementary school) plus a year at a continuation school or a session at a *folkehøgskole* (Folk high school). Currently the nine-year compulsory school is the basic academic admission requirement.

Many students enter the *lærerskole* with the *examen artium*. When this route is chosen the *lærerskole* is a two-year program rather than the four-year. Enrolling students must be at least 17 years of age.

Graduates from *lærerskoler* are prepared to teach all subjects in the *folkeskole* or the *grunnskole*.

Lærerhøgskolen (higher level teachers college) in Trondheim opened in 1922. Its purpose emphasized *etter* (after) rather than *videre* (continuing or higher) education for those who already had *lærerskoleeksamen*. Such students, usually active teachers in the public school system, studied pedagogy and one or more subjects for one year and then returned to the elementary school.

In the late 1950s the emphasis shifted to *videre* (continuing or higher) education. The students, still mostly teachers, specialized for one or two years in one or two *fag* (subjects or subject fields) such as Norwegian or English taking a *grunnfag* (same as the university in Oslo). They then returned to the elementary schools as specialists in those *fag* and became

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*Credit for advanced standing should be considered.

"*fag-lærere*," in other words teachers in special subjects, and they were also qualified to teach in the last three years of compulsory school.

When the *Lærerhøgskolen* became a part of the University of Trondheim, the *Lærerhøgskolen* became the College of Arts and Sciences. Now entering teachers may continue their studies to earn a *Cand. Mag.* or *Cand. Philol.* or *Cand. Real.* They may then teach in secondary as well as elementary schools.

IV. UNIVERSITIES AND UNIVERSITY-LEVEL INSTITUTIONS

A. Universities and Professional Schools. Universities were established comparatively late in Norway. The first institution of higher learning dates back only to 1811 when the *Universitetet i Oslo* (University in Oslo) was founded. Before 1939, the University was known as *Det Kongelige Frederiks Universitet* named after Frederik VI, then King of Denmark/Norway. Before 1811, Norwegian students sought their education in Copenhagen (Denmark) University, founded in 1479. Also established in 1479 was Uppsala University in Sweden.

The universities of Norway are as follows:

Universities: (Listed in order of date founded)	Date of Founding
Universitetet i Oslo, Oslo	1811
Universitetet i Bergen, Bergen	1948
Universitetet i Tromsø, Tromsø	1968
Universitetet i Trondheim, Trondheim	1969
Other Institutions of Higher Education:	
Norges landbrukshøgskole Ås (near Oslo), (The Agricultural University of Norway)	1859
Det teologiske menighets fakultet (The Free Faculty of Theology), Oslo	1908
Norges veterinærhøgskole (The Veterinary College of Norway), Oslo	1935
Norges handelshøgskole (The Norwegian School of Economics and Business Administration), Bergen	1936
Arkitekthøgskolen i Oslo (Oslo School of Architecture)	1965
Norges idrettshøgskole (The Norwegian College of Physical Education and Sport), Oslo	1968

The universities in Oslo and Bergen maintain the traditional Faculties of Liberal Arts, Mathematics and Natural Sciences, Medicine, Dentistry, Law, and Social Sciences. (In addition, there is a Faculty of Theology in Oslo.)

In 1969 the University of Trondheim was established by integrating three main educational and scientific institutions already in existence.

1. *Det Kongelige Norske Videnskabers Selskab Museet* (The Royal Norwegian Society of Sciences and Letters), the museum founded in 1760.
2. *Norges Lærerhøgskole* (The College of Arts and Science), founded in 1922 as an advanced teachers college.
3. *Norges tekniske høgskole* (The Norwegian Institute of Technology), established in 1910. Although an integrated system of administration is not yet established, a *interimstyre* (provisional board) is in action.

Norway's newest university, founded in 1968, opened at Tromsø. The first students began their studies in the fall of 1972. Located on the seventieth parallel north, it is the world's northernmost university. It is currently divided into institutes in the following subjects: medicine, philology, sociology, science, and fisheries.

In terms of duration a student determines his own readiness. A *grunnfag* (basic studies) at the University of Oslo is estimated to require two semesters of concentrated study beyond the *examen philosophicum*. A *mellomfag* (a minor) requires a minimum of three semesters. Thus a *Cand. Mag.* degree requiring one *grunnfag* and two *mellomfag* may be completed in 4 1/2 years, e.g.

1 semester	*Philosophicum*--preparatory examination
2 semesters	*Grunnfag*--one subject
6 semesters	Two *mellomfag*--two subjects
9 semesters	Total

Table V indicates the various university and degree programs available in Norway, where they are offered, and the approximate duration of each program.

TABLE V. UNIVERSITY AND DEGREE PROGRAMS

(Continued on page 70)

	Agriculture Univ.	Bergen	Free Faculty of Theology	Oslo	Oslo, School of Architecture	Nor. College of Phys. Educ.	Nor. College of Vet. Science	Nor. School of Econ. & Bus. Ad.	Tromsø	Trondheim	Length of Study (Years)
AGRICULTURE											
*Cand. agric.**	X	.	.	.	.	.	.	.	.	.	1+4
Lic. agric.	X	.	.	.	.	.	.	.	.	.	3-4
Dr. agric.	X	.	.	.	.	.	.	.	.	.	
ARCHITECTURE											
*Ark.**	.	.	.	.	X	.	.	.	.	X	4 1/2
Lic. techn.	.	.	.	.	X	.	.	.	.	X	2-3
Dr. techn.	.	.	.	.	X	.	.	.	.	X	
BUSINESS											
*Siviløkonom**	.	.	.	.	.	.	.	X	.	.	3-4
Handelslærer	.	.	.	.	.	.	.	X	.	.	5-6
Lic. N.H.H.	.	.	.	.	.	.	.	X	.	.	6-7
Dr. oecon.	.	.	.	.	.	.	.	X	.	.	
CHEMICAL ENGINEERING											
*Siv. ing.**	.	.	.	.	.	.	.	.	.	X	4 1/2
Lic. techn.	.	.	.	.	.	.	.	.	.	X	2-3
Dr. techn.	.	.	.	.	.	.	.	.	.	X	
CIVIL ENGINEERING											
*Siv. ing.**	.	.	.	.	.	.	.	.	.	X	4 1/2
Lic. techn.	.	.	.	.	.	.	.	.	.	X	2-3
Dr. techn.	.	.	.	.	.	.	.	.	.	X	
DENTISTRY											
Cand. odont.	.	X	.	X	.	.	.	.	.	.	5
Lic. odont.	.	X	.	X	.	.	.	.	.	.	
Dr. odont.	.	X	.	X	.	.	.	.	.	.	
ELECTRICAL ENGIN.											
*Siv. ing.**	.	.	.	.	.	.	.	.	.	X	4 1/2
Lic. techn.	.	.	.	.	.	.	.	.	.	X	2-3
Dr. techn.	.	.	.	.	.	.	.	.	.	X	
FISHERIES											
*Cand. mag.**	.	X**	.	.	.	.	.	.	X	.	4
GENERAL SCIENCES											
*Siv. ing.**	.	.	.	.	.	.	.	.	.	X	4 1/2
Lic. techn.	.	.	.	.	.	.	.	.	.	X	2-3
Dr. techn.	.	.	.	.	.	.	.	.	.	X	
LAW											
Cand. jur.	.	X	.	X	.	.	.	.	.	.	5-6
Lic. jur.	.	.	.	X	.	.	.	.	.	.	
Dr. jur.	.	.	.	X	.	.	.	.	.	.	
LIBERAL ARTS											
*Cand. mag.**	.	X	.	X	.	.	.	.	X	X	4 1/2-5
Cand. philol.	.	X	.	X	.	.	.	.	X	X	7
Mag. art.	.	X	.	X	.	.	.	.	X	.	7
Lic. philos.	.	.	.	X	.	.	.	.	.	.	
Dr. philos.	.	X	.	X	.	.	.	.	.	X	

*first degree
**graduate only

TABLE V. (continued)

	Agri-culture Univ.	Bergen	Free Faculty of Theology	Oslo	Oslo, School of Archi-tecture	Nor. College of Phys. Educ.	Nor. College of Vet. Science	Nor. School of Econ. & Bus. Ad.	Tromsø	Trond-heim	Length of Study (Years)
MATH AND SCIENCE											
*Forsikringsteknisk eksamen**	.	.	.	X	.	.	.	.	.	.	3
*Cand. act.**	.	.	.	X	.	.	.	.	.	.	5-6
Cand. mag.	.	X	.	X	.	.	.	.	X	X	3 1/2-5
Cand. real.	.	X	.	X	.	.	.	.	X	X	5 1/2-7
Cand. pharm.	.	.	.	X	.	.	.	.	.	.	5
Mag. scient.	.	X	.	X	.	.	.	.	.	.	6-8
Dr. philos.	.	X	.	X	.	.	.	.	.	X	-
MECHANICAL ENGIN.											
*Siv. ing.**	.	.	.	.	.	.	.	.	.	X	4 1/2
Lic. techn.	.	.	.	.	.	.	.	.	.	X	2-3
Dr. techn.	.	.	.	.	.	.	.	.	.	X	
MEDICINE											
Cand. med.	.	X	.	X	.	.	.	.	X	.	6-7
Dr. med.	.	X	.	X	.	.	.	.	.	.	
MINING & METALLURGY											
*Siv. ing.**	.	.	.	.	.	.	.	.	.	X	4 1/2
Lic. techn.	.	.	.	.	.	.	.	.	.	X	2-3
Dr. techn.	.	.	.	.	.	.	.	.	.	X	
PHYSICAL EDUCATION											
Lower degree	.	.	.	.	.	X	.	.	.	.	2-3
Higher degree*	.	.	.	.	.	X	.	.	.	.	4-6
SOCIAL SCIENCES											
Exam. oecon.	.	.	.	X	.	.	.	.	.	.	3 1/2
*Cand. mag.**	.	X	.	X	.	.	.	.	X	X	4-5
Cand. oecon.	.	.	.	X	.	.	.	.	X	.	6-7
Cand. paed.	.	.	.	X	.	.	.	.	.	.	7
Cand. polit.	.	X	.	X	.	.	.	.	.	.	6-7
Cand. psychol.	.	X	.	X	.	.	.	.	.	.	6-7
Cand. sociol.	.	.	.	X	.	.	.	.	X	.	6-7
Cand. philol.	.	.	.	.	.	.	.	.	.	X	7
Mag. art.	.	X	.	X	.	.	.	.	X	X	6-7
Lic. oecon.	.	.	.	X	.	.	.	.	.	.	
Lic. philos.	.	.	.	X	.	.	.	.	.	.	
Dr. philos.	.	X	.	X	.	.	.	.	.	X	
THEOLOGY											
Cand. theol.	.	.	X	X	.	.	.	.	.	.	6-7
Lic. theol.	.	.	.	X	.	.	.	.	.	.	
Dr. theol.	.	.	X	X	.	.	.	.	.	.	
VETERINARY SCIENCE											
*Cand. med. vet.**	.	.	.	.	.	.	X	.	.	.	4 1/2
Lic. med. vet.	.	.	.	.	.	.	X	.	.	.	3
Dr. med. vet.	.	.	.	.	.	.	X	.	.	.	

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*first degree

B. Private Business Colleges. There are two private business colleges in Norway. The oldest (1936) and most prominent is *Bedriftsøkonomisk Institutt* (Oslo School of Business Administration). Many of the students enter with the *examen artium* (secondary terminal examination), but others are admitted with lesser academic requirements. The main facilities of the school are in Oslo, but the institute does offer programs in other areas of Norway. In addition to the regular, full-time, three-year program, evening courses are also offered. The three-year program offers an intensive study in the academic areas usually associated with a school of business administration--economics, accounting, mathematics, statistics, finance, marketing, and management, to name some. The *Institutt* has had an arrangement with the University of Wisconsin whereby Wisconsin will accept certain of its graduates into their graduate program in business administration.

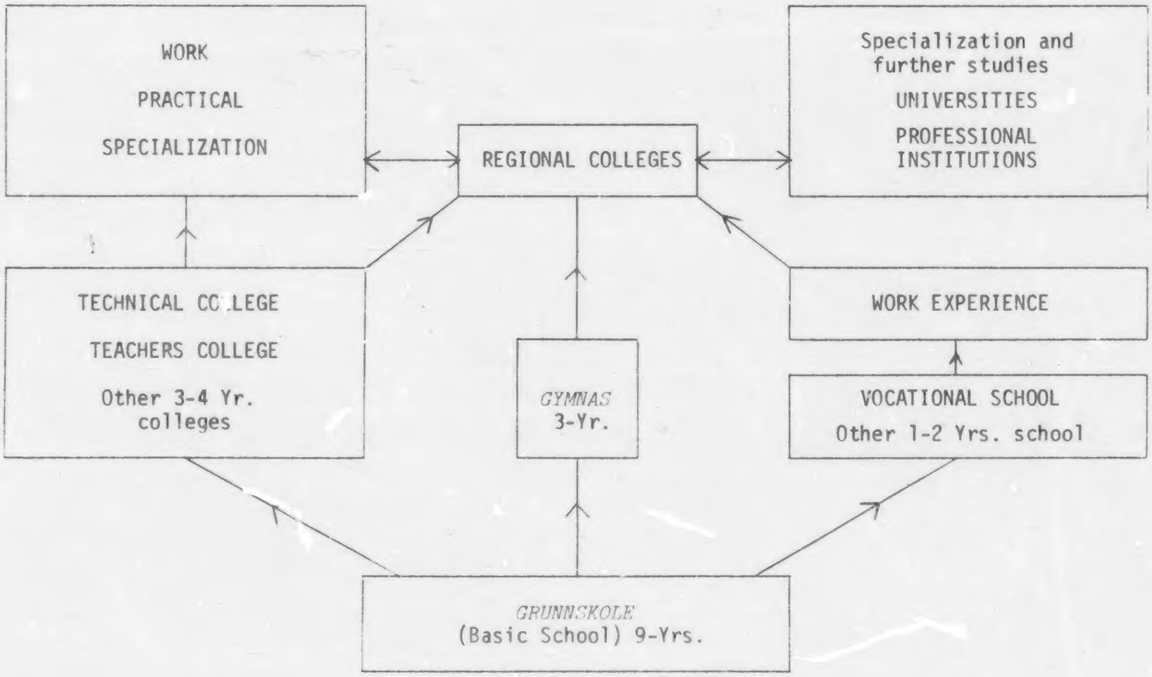
The second institution, *Handelsakademiet*, opened in 1970 in Oslo. Its program is substantially the same as that of *Bedriftsøkonomisk Institutt* and the business school at Bergen. Unlike the Bergen school, however, it does not have a full-time faculty but draws from business graduates who are working in business and industry.

C. *Distriktshøgskolen* (Regional Colleges). Over the past four years, Norway has built a total of six regional colleges. These institutions give university-level education but are not "substitute universities." They offer mainly two-year employment-oriented training and/or other courses at an intermediate level as a basis for further study. In addition, they offer adult education refresher courses adapted to local needs.

Regional colleges give the students opportunities to choose subject combinations which are not possible in traditional compartmentalized programs. The study form is free with great emphasis placed on self study or in groups.

Although the majority of students have the *examen artium*, it is not necessary for studying at a regional college. Students who have only taken their final examinations in the individual main high school subjects--Norwegian, English and German--are also accepted. In addition, applicants who have completed the higher courses at the seamen's training schools, for example, are accepted.

SOURCES OF ENTRANCES TO REGIONAL COLLEGES.


WORK
PRACTICAL
SPECIALIZATION
REGIONAL COLLEGES
Specialization and further studies
UNIVERSITIES
PROFESSIONAL INSTITUTIONS
TECHNICAL COLLEGE
TEACHERS COLLEGE
Other 3-4 Yr. colleges
GYMNAS 3-Yr.
WORK EXPERIENCE
VOCATIONAL SCHOOL
Other 1-2 Yrs. school
GRUNNSKOLE (Basic School) 9-Yrs.

The average time of study at a regional college is two years, although there are also three-year and one-year courses, and, in addition, more specialized courses lasting only a few months. In principle, the regional colleges are open to everyone who desires supplementary or refresher courses. The new institutions are thus also part of the general adult education program.

Attendance at lectures is not required, and great emphasis is placed on self study; however, attandance is required for seminar and group work. Teaching varies between lectures, seminars, and group work under individual guidance. Teachers and students together decide the forms of instruction which should be given most emphasis in any particular course. Teachers at regional colleges must have the same qualifications as those of university lecturers.

Subjects offered by the colleges include economics and business administration, public administration, transportation, tourism, social sciences, oil technology, engineering, and public communications. The studies include a one-year and two-year curriculum based on two 18-week semesters. Usually a student takes ten credits each semester. Students who have obtained 40 credits obtain the degree *høgskolekandidat*. A three-year program in science and engineering (60 credits or more) results in additional courses listed on the transcript; however, no new degree is conferred.

As the regional colleges expand their curricula they will offer major studies in journalism, music, art, drama and film, shipping and fisheries administration.

V. GRADING CHARACTERISTICS

Grades used for the *Examen Artium* and the *Økonomisk Gymnas* (Commercial College) (Secondary Terminal Examinations).

Grades given in letters. The grades are as follows:

	Numerical Value
Særdeles tilfredsstillende-- *S. tf.* (excellent)	4
Meget tilfredsstillende-- *M. tf.* (very good)	3
Tilfredsstillende--Tf. (good)	2
Noenlunde tilfredsstillende-- *Ng. tf.* (fair)	1
Måtelig (never abbreviated) (poor)	-2
Ikke tilfredsstillende-- *Ik. tf.* (failure)	-3

The grades *S. tf.* and *måtelig* are only used in marking the written examinations.

Final classification (average grade):

Særdeles tilfredsstillende
(excellent)
Meget tilfredsstillende
(very good)
Tilfredsstillende
(good)
Noenlunde tilfredsstillende
(fair)

This grade system has been used as follows:

In 1968 for the last time in subjects finished in the first year of the *gymnas*.
In 1969 for the last time in subjects finished in the second year of the *gymnas*.
In 1970 for the last time in subjects finished in the third (final) year of the *gymnas*.

Generally, for a student to pass the *examen artium*, or the examination for the *Økonomisk gymnas*, all grades must be *Ng. tf.* or better. In certain cases, however, a student may pass with the grade *måtelig* in one written subject.

Grades given in figures. The grades for oral and written subjects are as follows:

6	*seks* (best grade)
5	*fem*
4	*fire*
3	*tre*
2	*to* (lowest passing mark)
1	*en* (conditional pass depending upon *linje*)
0	*null* (poorest grade)

Grades given to indicate the degree of order shown by a student in his work:

God (good)
Mindre god (fair)
Dårlig (poor)

No final classification (average grade) is given. This grade system was introduced as follows:

In 1969 for the first time in subjects finished in the first year of the *gymnas*.
In 1970 for the first time in subjects finished in the second year of the *gymnas*.
In 1971 for the first time in subjects finished in the third (final) year of the *gymnas*.

Handelsgymnasium (commercial college)
Tekniske-Skole (technical college)
Distriktshøgskole (regional college)

High 1.0 (never awarded)
1.5
2.0
3.0
3.5 (lowest passing average)
4.0 (lowest passing mark)
4.5
5.0
Low 6.0

(Failing grades are not recorded at regional colleges.) Group Grading: *tilfredsstillende* (satisfactory), *ikke tilfredsstillende* (unsatisfactory).

Bedriftsøkonomisk Institutt (Institute of Business Administration)

1.0-1.5 (excellent)--(rarely awarded)
1.6-2.2 (very good)
2.3-2.9 (good)
3.0-3.5 (fair)
3.6-6.0 (failing)

Lærerskole (teachers college)

Saerdeles godt (excellent)	4
Meget godt (very good)	3
Godt (good)	2
Godkjent (passed)	1

Handelshøyskole (economic and business administration college)

9 } If awarded, reported to the king (no
8 } student has ever received)
7
6
5
4
3 (lowest average for graduation)
2 (lowest passing mark)
1
0

Final average--best indicator for level of proficiency.

Universities of Oslo, Bergen, Tromsø

Theology:
laudabilis prae ceteris (highest grade)
laudabilis
haud illaudabilis primi gradus
haud illaudabilis secundi gradus
non contemnendus (given only in single subjects) (lowest grade)

Law:
laudabilis (highest grade)
up to and including 2.15
står til laudabilis
up to and including 2.35
kan få laudabilis
up to and including 2.55
kan vel få laudabilis
up to and including 2.75
haud illaudabilis
up to and including 2.95
står til haud illaudabilis
up to and including 3.15 (lowest grade)

Medicine:

laudabilis cum litteris commendatitiis	12.00-11.00	(highest grade)
laudabilis	10.99- 9.00	
haud illaudabilis	8.99- 7.00	
non contemnendus	6.99- 6.00	(lowest passing grade)

Liberal Arts:

laudabilis prae ceteris	1.00- 1.50	(highest grade)
laudabilis	1.51- 2.50	
haud illaudabilis	2.51- 3.25	
non contemnendus	3.26- 4.00	(lowest passing grade)

Realfag (Mathematics and Science):
Same grading system as used in Faculty of Liberal arts
Dentistry:
Same grading system as used in Faculty of Medicine
Social Sciences:
For *Cand. Mag.*, *Cand. Polit.*, *Cand. Paed.*, *Cand. Psychol.*, and *Cand. Sociol.* (Part I), grading system same as that used in Faculty of Liberal Arts
For *Cand. Sociol.* (Part II)--pass/fail grading only
For *Exam. oecon.* and *Cand. oecon.*, grading system same as that used in Faculty of Law, but with the addition of:
kan få haud illaudabilis
up to and including 3.35
non contemnendus
up to and including 3.50

The grading systems are about the same for single subjects as those listed above for the final degrees.

University of Trondheim

Filologi (Liberal Arts):
Realfag (Mathematics and Sciences):
Samfunnsfag (Social Sciences):

laudabilis praeceteris	1.00- 1.50	(highest grade)
laudabilis	1.51- 2.50	
haud illaudabilis	2.51- 3.25	
non contemnendus	3.26- 4.00	(lowest passing grade)

VI. NORWAY RECOMMENDATIONS

Any discussion of Scandinavian versus U.S. secondary education must take the comprehensive nature of U.S. high schools into consideration. While *examen artium* stands for something specific, many times an American high school diploma does not. The latter may represent an academic education equal to and in some cases above the *examen artium*; however, it may also represent primarily vocational or business training. It may also represent a combination of academic, business, and vocational training. This is a characteristic of the more comprehensive American high school.

Any future placement recommendations must also take into consideration the proposed revision of the Norwegian secondary educational system towards a more comprehensive system.

Taken into consideration must also be the wide variety of admission requirements of the different types of American colleges and universities. Some have a nonselective admission policy, i.e., they will admit all students with a high school diploma regardless of course selections in high school and grades earned. Others are moderately selective, i.e., they require a minimum number of units in English, mathematics, natural sciences, social sciences and a foreign language and require a minimum grade point average. A third group is very selective, so that only 10-15 percent of the high school graduates will qualify for admission. More and more North American institutions of higher education offer new students opportunities to challenge for advanced placement credits by examinations such as College Level Examination Program and others. International students may take advantage of this.

The following recommendations aim at North American institutions having an open or a moderately selective admission policy.

A. *Examen Artium*

1. Present *Examen Artium*. Students admitted with an *examen artium* or the *økonomisk gymnas* should be considered for up to about one year of advanced credit. The awarding of credit may to some extent depend on the student's degree objective in North America.

2. Proposed Revision of the Secondary-School System in Norway. If the Norwegian *storting* (parliament) adopts the proposition now before it in substantially unchanged form, the placement recommendation under number one may not be appropriate in all programs. No specific recommendation should be made at this time. Information on the new schedule should be available by fall 1974.

B. Universities

3. Undergraduate Norwegian students transferring to North American institutions may be awarded credit as follows (beyond credit awarded for the *examen artium*):

examen philosophicum
approximately 15 semester hours
grunnfag
approximately 30 semester hours
mellomfag
approximately 45 semester hours

4. Students with degrees such as *Cand. Mag.* (refer to chart on page 69 and degrees marked with a "*first degree"), should be considered for admission to graduate schools in North America at the level of a North American student who has completed approximately one year of graduate studies.

5. Second degrees, such as *Cand. Philol.*, *Cand. Polit.*, *Cand. Oecon.*, and *Mag. Art.* should be considered between the Master's and Ph.D. degrees.

6. *Norges Handelshøyskole* (Norwegian School of Business Administration and Economics). A degree-granting institution in Norway offering a *siviløkonom* degree. Students with this degree should be considered for admission to graduate studies.

C. Elementary Teacher Training

7. Graduates from *lærerskole* may receive approximately one year of credit if the student enters an elementary teacher-training program in North America. Those who entered the *lærerskole* with the *examen artium* should be considered for additional credit as recommended under number one.

8. Graduates from *lærerhøgskolen* in Trondheim should receive additional credits up to a maximum of one year each for the two-course, two-year program. Each course in the program is one year in length.

D. Technical Colleges

9. Graduates from the two-year *teknisk skole* programs should be considered for advanced credit for approximately one year on a course by course basis. This is in addition to the one year of credit recommended for the *examen artium* with a pure science concentration (*reallinjen*).

10. Graduates of the three-year program may be considered for freshman admission.

E. Regional Colleges

11. Graduates should be considered for credit on a year by year basis beyond that recommended for the *examen artium*.

F. Private Schools of Business Administration

12. Oslo Institute of Business Administration. Students who have successfully completed the *diploma økonom* degree should be considered for admission to graduate studies.

13. *Handelsakademiet* (College of Business Administration, Oslo). It was felt that no recommendation could be made because of insufficient information and the relatively recent establishment of the institution.

G. Private Technical Institute

14. Schou's Technical Institute. Graduates of this institution may be granted approximately two years of advanced credit in North American colleges of engineering. The careful structuring of courses toward the prevailing system in North America is a safeguard in the transfer of credits.*

VII. SUPPORTIVE SERVICES AVAILABLE TO NORWEGIAN STUDENTS STUDYING ABROAD

A. The Association of Norwegian Students Abroad (ANSA). The Association of Norwegian Students Abroad (ANSA) is a nonprofit student organization with the purpose of securing and improving the social, economic and cultural needs which are common to Norwegian students abroad.

Any country with a number of ANSA members forms a national group, thus ANSA/USA-Canada. The national groups meet once a year to elect their officers and representatives to the annual meeting held in Norway. Any Norwegian full-time student can become a member and pay the annual fee of $10.00.

ANSAs highest authority is the annual "representatives meeting" held in Oslo on the third week-end in August. All members may attend and each country is represented with a number of votes depending on the number of members in that country. An executive board is elected at that meeting which carries out the program for the following year. The day-to-day operations are directed by a secretariate of six which is headed by the Secretary General. The current Secretary General is Per Johannessen. In addition, ANSA has an educational officer for Europe, with his office located in Oslo, and an educational attaché for the U.S.A. and Canada, situated in New York. Mr. Fred H. Nomme who currently holds the latter position participated in the Workshop.

The two educational officers represent both ANSA and Norwegian authorities.

ANSA had a little over 3,000 paying members in 1973. It is estimated that Norway has approximately 6,000 students pursuing post-secondary education abroad.

The annual operating budget for ANSA approximates $180,000. Membership dues account for approximately $20,000; thus, 80 percent of the budget is secured through a special grant from the Ministry of Church and Education without any direct obligations. ANSA also receives support from private Norwegian companies.

Both ANSAs Secretariate in Oslo and the educational attaché for North America may be of assistance to institutions wishing further information on educational backgrounds from Norway. ANSA was one of the sponsors for the Workshop.

The address is: ANSA, Storgt. 3, Oslo 1, Norway.

B. *Statens Lånekasse for Utdanning* (The State Bank for Education, Also Called The State Educational Loan Fund). This institution, operating under the "Act providing support for youth undergoing higher education, June 10, 1969," is the cornerstone in financial aid to Norwegian students at home and abroad.

In addition to providing low-interest loans, the Bank administers state stipends (scholarships) which are not repayable. The state guarantees the loans. Depending on the cost and kind of education, the student may use between ten to 20 years to repay the loan.

For students pursuing higher education abroad, support will be given provided that:

- --the study is full-time with a minimum duration of one year
- --the education leads to a recognized competence in Norway
- --there is need for this particular kind of educational background in Norway
- --that Norwegian institutions of higher learning cannot provide the education, and
- --the student will return to Norway upon completion of his education (this is only assumed, not demanded).

Due to these limitations, most support is currently given to students pursuing degrees in medicine, dentistry, business administration and engineering.

In addition to loans, a student in North America pursuing any degree (not pre-med.) within these fields should receive "subsistence grant" (in 1973-74 kr. 2,850), "travel allowance" (if studies are of more than two years duration), "fee grant" (maximum kr. 6,000 for 1973-74), and "basic grant" (kr. 900 for 1973-74). Editor's note: In 1973 one kroner (kr.)

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*Dittmann, Reidar. *Norway*. Washington: World Education Series, American Association of Collegiate Registrars and Admissions Officers, 1971. 64 p.

equalled approximately 19 cents in U.S. currency.

Support is generally provided beginning with the junior year in the United States. A student may expect support from the first year in Canada.

Due to the fact that Norwegian students for many years have sought education abroad the Bank has developed its own information division for studies abroad. This division cooperates with ANSA on information about studies abroad.

The address is: *Statens Lånekasse for Utdanning*, Økernveien 145, Oslo 5, Norway

C. The Norway-America Association. The Norway-America Association founded in 1919 is a nonprofit organization. The Association is supported solely by private Norwegian contributions from individuals and firms believing in the objectives, as stated in the Constitution: "to promote cultural and practical cooperation between Norway on the one side and the United States and Canada on the other side."

The objective is fulfilled by meetings, films, exhibitions on Norwegian-American themes, and by acting as an information center on study possibilities and assistance to Norwegian and American students.

The Association prepares many documents for Norwegian students which provide basic information concerning studies in America. In addition, much information is provided concerning specialized fields of study. Their library contains the latest additions of the most useful reference books on the studies in the United States and Canada. Over 1,000 university catalogs are available for students seeking information.

In 1972, the Association awarded or effectuated scholarships for studies in the United States at a total value of about $110,000. The scholarships are awarded one year in advance of entering the college or university. The announcement takes place in August each year with a deadline usually around September 10th.

The Association has been involved in coordinating special study programs both in America and Norway. Schools or individuals wishing to discuss a program needing a cooperative effort in Norway or a scholarship program are encouraged to contact: The Director, The Norway-America Association, Drammensveien 20C, Oslo 2, Norway.

D. Social Security Office for Students Abroad. According to the National Insurance Act of June 17, 1966 with alterations of June 16, 1971, "all persons domiciled in Norway," irrespective of their citizenship, are covered under the program.

Norwegian citizens residing abroad, such as students, may become members on a voluntary basis. If the annual income is less than N. kr. 4,000 (approximately $750), there is no premium. Otherwise, the premium is 8.5 percent of estimated income.

The program covers practically all medical expenses incurred by the student, his spouse or children under 18. Nonprescribed medicines and medical check-ups are not refunded.

Students who show proof of voluntary membership in the program should be allowed a refund of compulsory health insurance in United States institutions.

VIII. GLOSSARY OF NORWEGIAN EDUCATIONAL TERMS

Adjunkt--Lower-ranking teacher in the secondary school system (*Cand. Mag.* + one semester pedagogy)

Akademi--Institution of higher learning, most often applied to advanced study and/or training in specific fields

ANSA--Association of Norwegian Students Abroad

Arbeiderpartiet--Labor Party

Arkitekt--Architect

Barneskolen--The first six years of the *grunnskolen* (basic school)

Bedriftsøkonom--The title awarded graduates of the two-year evening program at *Bedriftsøkonomisk Institutt* (*linje* I)

Bedriftsøkonomisk Institutt--Oslo Institute of Business Administration

Bedriftsøkonomisk Kandidat--The title awarded graduates of the two-year advanced evening program at *Bedriftsøkonomisk Institutt* (*linje* IIa)

Dårlig--Poor

Diplomøkonom BI--The title awarded graduates of the 3 1/2-year full-time program at *Bedriftsøkonomisk Institutt* (*linje* II)

Distriktshøgskole--Regional college, new postgymnasium institution established in 1969. (In 1973 there were six such colleges.)

Doktor--Doctor, abbrev. Dr., applicable to earned doctorates. (The title of an M.D. is *lege*.)

Eksamen--Examination, test.

Elev--Pupil/student. (On the university level the word is *student.*)

Embetseksamen--The composite tests leading to university degrees, the word derived from *embet*, meaning "official position"

En--One

Engelsklinjen--The English concentration in the gymnasium

Etter--After

Examen Artium--The matriculation examination, almost always a prerequisite for university entry

Fag--Subject fields

Fagskole--Vocational school

Fakultet--Academic administrative entity within the university system, division

Fem--Five

Fire--Four

Folkehøgskole--Folk high school--a center for adult education with cultural-vocational emphasis

Folkeskole--Elementary school, an older term for *barneskole*

Forberedende prøve--Preparatory examination at the university

Framhaldsskole--Continuation school, two years following *folkeskolen* (now abolished)

God--Good

Grunnfag--Basic subject area, the lowest university minor

Grunnskolen--The basic school of nine years in the new system of public education (*barneskole* + *ungdomsskole*)

Gymnas (gymnasium)--The three-year upper secondary school based on *grunnskolen* and concluding with *examen artium*

Gymnasrådet--State Council for Secondary Education

Handelsakademiet--College of Business Administration, Oslo

Handelsgymnasium--Same as *økonomisk gymnas.* Most *handelsgymnasiums* also offer one-year specialized studies in business administration and economics for students from other concentration areas in the gymnasium

Handelslaerer--Teacher of commercial subjects in a *handelsgymnasium.* Certification obtained through graduation from *norges handelshøyskole* and completion of the one-year postgraduate course

Handelsøkonom--The title awarded graduates from *handelsakademiet*

Handelsskole--Vocational school in business subjects (one-year post*ungdomsskole*)

Høgskole (Høyskole)--Postgymnasium institution of higher learning university level

Høgskolekandidat--The official title of a graduate of a two-year regional college

Hovedfag--Main subject area, major

Hovedkarakter--Average grade (actually "main grade")

Høyere skole--Gymnasium

Høyre--Conservative Party

Husmorskole--School of home economics (not academic)

Ikke tilfredsstillende (Ik.tf.)--Failing grade

Ingeniør--Engineer, the title awarded graduates from *teknisk skole*

Institutt--Most commonly a "department" in a university, a separate institution of higher learning, or a research agency

Karakter--Grade

Katedralskole--Cathedral school, secondary schools dating back to the Middle Ages. Now same as gymnasium

Kirke og Undervisningsdepartmentet--Ministry of Church and Education

Konservatorium--Music conservatory

Lærerhøgskolen--Higher level teachers' college

Lærerskole--Teachers' training college

Landsgymnas--Rural four-year gymnasium (now abolished)

Latinlinje--Latin concentration

Lege--Professional title of a graduate of the Faculty of Medicine, a *Cand. Med.*

Lektor--Highest-ranking teacher in the secondary school system

Linje--"Line"--gymnasium concentration

Mag. art.--*Magister artium*, a research degree at the university

Måtelig--The grade "poor" in the secondary school grading system

Meget tilfredsstillende (M.tf.)--The grade "very good" in the secondary school grading system, highest obtainable grade in oral subjects

Mellomfag--Minor

Menighetsfakultetet--The Free Faculty of Theology

Middelskole--Intermediate school, older term for *ungdomsskolen*

Mindre god--Fair

Muntlig--Oral

Musikkonservatoriet--The Music Conservatory

Naturfaglinje--Natural science concentration in the gymnasium

Navigasjonsskole--School of navigation

Noenlunne tilfredsstillende (Ng.tf.)--The grade "fair" in the secondary school system

Norge (vernacular *Noreg*)--Norway

Norges Handelshøgskole--State College for Business Administration and Economics

Norges Idrettshøgskole--State College of Physical Education

Norges Lærerhøgskole--State College for Teachers

Norges Landbrukshøgskole--State College of Agriculture

Norges Tekniske Høgskole--State Institute of Technology

Norges Veterinærhøgskole--State College of Veterinary Sciences

Norrøn linje--Norwegian concentration in gymnasium

Null--Zero

Økonomilinje--Business administration concentration in gymnasium

Økonomisk gymnas--Gymnasium specializing in business administration

Pedagogisk seminar--Pedagogical seminar, one-semester required study in education for teaching candidates in university degree programs

Privatist--A self-sponsored candidate for *examen artium*

Prøve--Examination, test

Reallinje--Pure science concentration in gymnasium

Realskole--Lower secondary school, now absorbed by the *ungdomsskole*

Rektor--Principal of a secondary school, president of a university or of other institution within the university system

Særdeles tilfredsstillende (S.tf.)--The grade "excellent" in the secondary school grading system, obtainable only in written subjects

Samfunnskunnskap--Social studies

Seks--Six

Sensor--A censor, judge, at an oral and written examination

Sivilingeniør--Title limited by law to engineering graduates of the State Institute of Technology. Also awarded to graduates from universities abroad on certain conditions

Siviløkonom--Title limited by law to graduates of the State College for Business Administration and Economics. Also awarded to graduates from universities abroad on certain conditions

Sjømannsskole--Vocational school for seamen

Skolen--School

Skriftlig--Written

Spesialskoler--Special schools for handicapped children

Statens Arkitektskole--State College of Architecture, parallel in level and rank with the School of Architecture at the State Institute of Technology

Statens håndverks og kunst industriskole--State School for Arts and Crafts

Statens Kunstakademi--Norwegian Academy of Art

Statens Lånekasse for Utdanning--State Bank for Education, also called the State Educational Loan Fund

Statens Musikkhøgskole--State College of Music. Started fall of 1973

Storting--The Norwegian Parliament

Teknisk fagskole--Technical school on the vocational level

Teknisk skole--Technical college

Tilfredsstillende (Tf.)--The grade "good" in the secondary school grading system

To--Two

Tre--Three

Ungdomsskolen--The Youth School. The last three years of the *grunnskolen*, representing seventh, eighth and ninth years of education

Vekttall--The weight, value, assigned to a specific subject, e.g., English in the English concentration has the weight three, in other concentrations two. Weight multiplied by grade value results in the point value of each subject.

Videre--Continuing or higher

Vitnemål--Certificate, particularly matriculation certificate

Vitnesbyrd--Certificate, older term

Yrkesskole--Vocational school

IX. NORWAY REFERENCES

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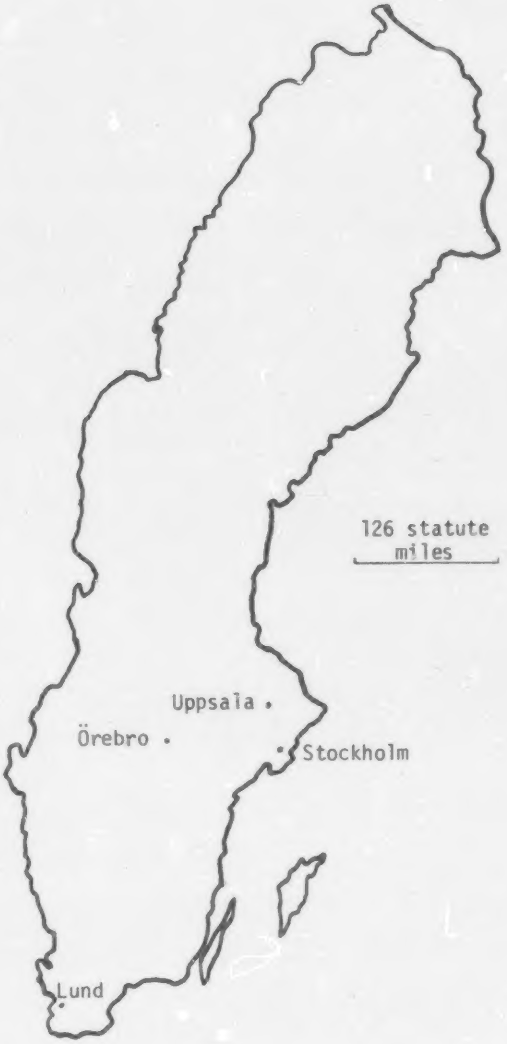

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I. CHART OF THE SWEDISH EDUCATIONAL SYSTEM

Age	School Year	SWEDEN								U.S.A.	School Year	Age
26	20	*Universitet* (University) and *Högskolan* (University-level College)								Graduate and Professional	20	25
25	19										19	24
24	18										18	23
23	17										17	22
22	16	2 yr.	2 1/2 yr.	3 yr.	3 1/2 yr.	4 yr.	4 1/2 yr.	5 yr.	5 1/2 yr.	Undergraduate College	16	21
21	15	Journalism	Nursing	Arts and Sciences Bus. Adm.	Public Adm. Soc. Work Theology	Pharmacy Engineering	Law	Dentistry — Agriculture	Medicine — Veterinary		15	20
20	14										14	19
19	13										13	18
18	12		*Gymnasieskolan* (Upper Secondary School) (Economics, Humanities, Pure Sciences Social Sciences, Technology**)							Senior High School	12	17
17	11	2-year courses*									11	16
16	10										10	15
15	9	*Högstadiet* (Senior Level)							*Grundskolan* (Comprehensive School)	Junior High School	9	14
14	8										8	13
13	7										7	12
12	6	*Mellanstadiet* (Middle Level)								Elementary School	6	11
11	5										5	10
10	4										4	9
9	3	*Lågstadiet* (Junior Level)									3	8
8	2										2	7
7	1										1	6
6		*Barnstugan* (Preparatory School) *Lekskolan* (Play School) *Daghem* (Day Nursery)								Kindergarten Nursery (optional)		5
5												4
4												3

**Yrkesutbildning* (vocational lines) are building, clothing industry, office and commercial, electricity and telecommunications, transport, consumer goods, food industry, production technique, wood industry, mechanics, health, agriculture, consumers and health, and music. Academic lines are economics, social sciences, technology (Admissible to Freshman Year).

**A four-year course is also available in technology.

II. BACKGROUND--General and Education

A. General. Sweden, the largest of the Scandinavian countries, is roughly the size of the State of California. Located in Europe's most northern parts, over 50 percent of the land is forested and it is only in the southern part where the country is rich in farmland. In 1973, the population was 8,129,000 people. A small group of approximately 10,000 Laps break the ethnic homogeneity but their culture, located in the far northern interior, does not affect the rest of the population. The bulk of the remaining 411,000 aliens are members of the Nordic Council countries who are free to live and work in Sweden.

The Evangelical Lutheran Church has been the established State Church since the sixteenth century. Less than five percent of the people belong to the so-called free churches which are different types of Protestant movements having seceded from the Swedish Lutheran Church.

Except for the Viking era, Sweden made no significant inroads on the rest of the world until the first half of the seventeenth century when the Swedish army made significant interventions in the European religious conflict known as the Thirty Years War. The Swedish army, on behalf of the Royal Family and its Potentates, fought for further territorial interests for the Protestant cause.

The present day boundaries of Sweden were created in 1809 when Finland was ceded to Russia. The same year saw the creation of the Instrument of Government which established the Office of the Parliamentary Commissioners, or Ombudsmen. The continuous accountability of civil and military agencies as well as courts are assured by the far-reaching rights of inspections accorded to the Ombudsmen.

When Marshall Jean Baptiste Bernadotte became crown prince of Sweden in 1810 he established a dynasty which survives till this day. Although Berradotte was one of Napoleon's closest associates, Sweden fought against France in 1813. A direct result was the union of Sweden and Norway in 1814 when Denmark ceded Norway under the Treaty of Kiel. Since that date, Sweden has never been a belligerent in a world conflict.

The first modern political party in Sweden, the Social Democratic Party, was founded in 1884. Although of late the party has lost some of its power in Sweden, the *Riksdag* has been dominated by the Social Democrats since 1932. From the outset, the party adopted the cause of promoting social, economic and cultural welfare of the common people, the small farmers, factory hands and lumberjacks who dominated the rural areas.

Around 1900, Sweden's other political parties, adhering to a strict ideological pattern of conservative, liberal and socialist, adopted an expanded suffrage as a major plank in an attempt to obtain more votes. The Center Party, by its very name, treads the borderline between conservative and liberal. Traditionally the party of the small farmer, it was in fact known as the Agrarian Party until 1958.

From 1905 to 1932, Swedish history witnessed, in what had taken more than a hundred years for the rest of Europe, a condensation of the process of urbanization, democratization and industrialization. Sweden's first social insurance scheme was introduced in 1913, universal suffrage was introduced between 1918 and 1921, the eight hour work-day was established by law in 1919, and labor peace legislation composed of the Collective Bargaining Act and the Labor Court Act was passed in 1928.

Intense political struggles between right and left characterized the 1920s, creating an unstable political society quite incapable of coping with two lurking problems: the emergence of Fascist power and vast unemployment from universal depression. It was in light of these two circumstances that the modern welfare state germinated in Sweden in 1932.

That year, the Social Democratic and Agrarian Parties formed a coalition with Per Albin Hansson, leader of the Social Democratic Party, as Prime Minister. Hansson had campaigned vigorously on the political concept of *Folkehemmet* or the People's Home. His theory was that the government's main role in the social order was to create a milieu in which all Swedish people could be participants in shaping their own destiny while feeling at home in their own country. This concept drew a responsive chord in the entire Swedish society and saw a closing of political ranks. The coalition, representing the broadest segment of the population in workers and farmers fashioned active policy aimed at combatting the depression with public works as its principal instrument, a protectionist price-support system for the benefit of farmers, and a family welfare program created by Alva and Gunnar Myrdal, two of Sweden's foremost social scientists.

Sweden's neutrality was threatened by the menace of Nazi Germany after the occupation of Denmark and Norway in April 1940. Although the vast majority of the Swedes endorsed the Allies, the government made limited concessions to the Nazis in order to maintain the country's neutrality. Although this proved unpopular with her neighbors, as evidenced by some resentment that lingers in the countries today, at the time it appeared necessary for the Swedish people to demonstrate their democratic principles as an example to the world of a nation committed to democratic methods in public life.

Hansson led a coalition cabinet composed of all factions except the Communists during the war year, but he died shortly after a Social Democratic cabinet took office in 1945 and Sweden's new Prime Minister became Tage Erlander.

In 1946, Sweden sought and gained admission to the United Nations where, as a nonaligned state, the country has acquired respect and prominence, particularly during the years 1953 to 1961 when Dag Hammarskjöld was the Secretary General.

Sweden's present day reputation as a modern welfare state coincides with the accession to the throne in 1950 of Gustav VI Adolf. The Nordic Council was established in 1952, with parliamentarians from Denmark, Finland, Norway, Sweden and Iceland convening regularly to act in an advisory capacity on political, legal and cultural matters common to all countries. Sweden joined the European Free Trade Association in 1960 which brought about duty-free trade between all Nordic Council countries.

In 1969, the Minister of Education, Olof Palme, succeeded Erlander as Prime Minister; in the general election the following September, the Social Democrats lost ground, obtaining only 163 seats in the 350 member *Riksdag*. The government relied on the 17 seats held by the Communists in order to out-vote the nonsocialist opposition. While in Sweden, the members of the Swedish contingent of the Workshop were able to witness two historical events during their first days in the country--the death of Gustav VI Adolf on September 14th, 1973, and the general election the following day which left the 350 member *Riksdag* split exactly 175 seats each between right and left factions.

Today, this apparently so stable welfare state has been affected by the "polarizing tendencies" between homogeneity and pluralism which have appeared all over the Western world. Public debate is focusing more on the defects of the system than on its merits. It remains to be seen if the current Swedish welfare state can survive the tensions created by this polarity.

B. Education. Education had its early roots in Sweden from 1275 A.D. when Duke Magnus became king. The church and the king mutually supported one another and a large number of cathedrals were built during this period, staffed by Franciscan and Dominican Orders who brought education to the people. Education was entirely in the hands of the church, as the only schools were cathedral schools.

Uppsala University, founded by Pope Sixtus IV in 1477, had ceased to function before Gustav Vasa ascended in 1523, and Gustav did nothing to remedy this. Swedes wanting to study attended a Lutheran University, usually Wittenberg. The good basic schools run by the monks closed after the Reformation called for at the *Riksdag* of Västerås in 1527.

In 1611, Gustav II Adolf ascended the throne to begin the "Age of Greatness." He quickly sensed the need for an educated class to cope with the sophisticated form of government he required, and to this end he donated a large sum of money to the hitherto neglected University of Uppsala. A new form of school, the *gymnasium*, was established in 1623 at Västerås, where classics, Hebrew, theology, history and mathematics were taught up to university level by graduate teachers. Uppsala was given royal patronage and new universities were founded in Swedish overseas territories. After the Treaty of Roskilde, which gave Sweden her southern domain, a Swedish university was established in 1668 at Lund, the *Academia Carolina Conciliatrix*. Stockholm and Gothenberg universities were established in the nineteenth century, although they were not granted their charter until the twentieth century.

In 1826, a school commission was set up which recommended that every parish should have its own elementary school, with parents responsible for their children's attendance. Further, training colleges were to be set up to guarantee adequate trained staffs. These recommendations were incorporated in the Education Bill of 1842. Compulsory schooling thus came to Sweden more than thirty years before a corresponding law was passed in Great Britain.

Attendance at primary school had been compulsory since 1842 and interest in education has been a feature of Swedish society for many centuries. There were until the 1940s still many discrepancies in the system, with those who could afford it being assured of a better education than those who could not, and those in country districts often being less well served than those in the towns. With a view to abolishing these anomalies, a School Commission was set up in 1946. Its recommendations, submitted two years later, for a nine-year comprehensive school were not unanimous, but the *Riksdag* accepted them. In 1950, the *Riksdag* proposed in principle a nine-year compulsory comprehensive school to replace most of the existing primary and secondary schools, but on an experimental basis with different schools in different areas participating. An Educational Drafting Committee was set up in 1957, by which time one-third of the nation was involved in the experiment, to assess the results and, after considering them, to draw up the final structure of the nine-year *grundskola* (basic school). By 1961 the committee presented its proposals, and although grave misgivings were expressed by certain members of the *Riksdag*, the proposals were accepted unanimously in 1962.

At the same time, the *Riksdag* passed the first Schools Act, which grants to everyone in Sweden the right to attend school free of charge and the obligation to attend for a minimum period from the age of 7 to 16. The schools had been rather disciplinarian, with a strong emphasis on examinations, on the assimilation of facts, and with a tendency to accept the infallibility of authority. One of the aims of the 1962 reforms was to alter this attitude and to lay particular stress on the development of personality.

After the comprehensive school, those who wished to continue their education could do so at the *gymnasium*. Until 1964 there were three kinds of *gymnasia*, the general, technical, and commercial, but that year the *Riksdag* voted to fuse them and by 1966 the new *gymnasium* had emerged. The old general *gymnasium* had been something of a hothouse for the careful nurturing of candidates for higher education, with the emphasis on academic subjects such as classics. The new institution adopted its courses more consciously to the needs of a modern society with subjects such as technology, economics, civics and modern languages.

All aspects of higher education in Sweden have come under scrutiny since 1968 when the Swedish Minister of Education appointed a commission (The 1968 Educational Commission, U68) to institute an overall plan for the future postsecondary education of the country. The Commissioners started with the premise that the individual's education as a whole should prepare him for an occupation. The main report of the commission, given to the Minister of Education in March 1973, attempts to treat higher education as a unity with regard to quantitative planning, the location of facilities, and the development of new educational programs. One section of the report, dealing with admission to basic higher education, has created some consternation among university officials since the commission recommends a limitation of the number of students admitted while advocating a more liberal approach to the admission requirements of candidates.

There have been vast changes in Swedish education during the last two decades, and there are many Swedes who deprecate the extent to which the old disciplines have been swept away and who predict a drastic falling-away of the high standards of the past. Many teachers insist that in practice the new informal attitude has not so much removed harmful inhibitions in the child as created an acute problem in classroom discipline. Conversely, the system has many supporters who feel that for the first time all Swedish children, whatever their background, are being given the opportunity to develop their talents. Educators in many countries are watching with keen interest to see what the results will be in the long run.

III. PRIMARY AND SECONDARY EDUCATION

A. General. Reform movements are changing the Swedish educational systems. These reforms have progressed rapidly and extensively in Sweden as compared to the other Scandinavian countries, probably because of its larger size and availability of resources. Another prominent feature of Swedish education is its centralized control.

More than 1,600,000 people are active students in the system with about 1,000,000 in the *grundskola* (comprehensive basic school), about 450,000 in the *gymnasieskola* (integrated upper secondary school) and about 150,000 in the postsecondary system.

Control of the educational systems is centralized in the *Skolöverstyrelsen (SÖ)* (National Board of Education) and the *Universitetskanslersämbetet (UKÄ)* (Office of the Chancello of the Swedish Universities). The *SÖ* provides planning, counseling, and information for the compulsory school through the integrated upper secondary school. Besides approving state grants for school buildings and long-term expansion plans, the *SÖ* is involved in continuous drafting and revision of curricula plus the production of teaching aids and quality control of teaching. It supplies information throughout the school year through conferences and the various educational news media. The *UKÄ* uses similar control techniques in the higher education system but this Bureau functions somewhat more in an advisory capacity.

B. Pre-University

1. Pre-primary and primary-secondary.

a) Pre-primary education is now being developed and may become part of the primary school system. There are play schools, day nurseries and leisure homes for small groups of 12 to 25, usually to help working mothers. In fact, some pre-school "latch key" type programs, completely staffed, may be a part of comprehensive school building as in Uppsala.

b) The *grundskola* (comprehensive basic school) consists of nine years of compulsory attendance for all pupils. It is divided into three levels: junior, middle, and senior, each lasting for three years. School is compulsory for nine years and lasts 39 weeks (273 days) a year which is divided into two terms. The age range of the students is 7 to 16 years of age. One feature of the comprehensive school is the endeavor to have all pupils follow the same courses. There is no differentiation as to ability and talent. Schools try to teach pupils the technique of study and the methodology of work, which will make it possible for them to go on studying on their own. Much emphasis is laid on the knowledge of subjects like Swedish, mathematics, and modern languages. All pupils take English from the third grade up through the ninth grade. On the senior level the pupils have an optional choice of German or French in addition to English. Moreover, the pupils can choose between an easy or a more difficult course of mathematics and English. In grade nine the pupils are divided into lines according to the choice of the parents and the pupils themselves. These lines, either theoretical or practical, prepare the student for academic studies at the Integrated Upper Secondary School.

2. Upper Secondary. The aim in the upper secondary school system is to provide a comprehensive *gymnasieskola* (integrated upper secondary school) for all who seek that level of education. Merger of the previous system of separate schools--academic *gymnasia*, technical schools, continuation schools, and vocational schools--is proceeding but more time is needed to complete the process.

Admission to the *gymnasieskola* is competitive and based on marks received when leaving the nine-year compulsory school. The three-year *gymnasiet* in an integrated school has five lines: liberal arts, social sciences, economics, natural sciences, and technology. All of these prepare for further studies at universities and colleges on the University level. The technical line is the most specialized and will offer a fourth year of study which qualifies students for low level engineering. A student may "jump over" from the natural science line to the technical line after the first year to continue with higher mathematics and physics.

Differentiation in the *gymnasieskola* in accordance with the major optional groups, alternative lines and sub-alternatives and variants is outlined in the following chart, "Differentiation in the *Gymnasieskola*." The next chart, "Total Number of Hours per Week in the *Gymnasieskola*," is supplementary to the previous chart.

Differentiation in the *Gymnasieskola*

1ST YEAR	2ND YEAR	3RD YEAR
	LIBERAL ARTS LINE	
Liberal arts/social sciences option	Liberal arts line	Liberal arts line
	Classical variant	Classical variant
	Semi-classical variant	Semi-classical variant
	Aesthetic variant	Aesthetic variant
	Social variant	Social variant
	SOCIAL SCIENCES LINE	
	Social sciences line	Social sciences line
	Aesthetic variant	Aesthetic variant
	Social variant	Social variant
	ECONOMICS LINE	
Economics, option		Accounting sub-alternative
		Distribution sub-alternative
	Economics line	Administration sub-alternative
		Economics/languages sub-alternative
	Aesthetic variant	Aesthetic variant
	Social variant	Social variant
	NATURAL SCIENCES LINE	
Natural sciences option	Natural sciences line	Natural sciences line
	TECHNOLOGY LINE*	
Technology option		Mechanical engineering sub-alternative
		Building sub-alternative
	Technology line	Electro-engineering sub-alternative
		Chemistry sub-alternative

*4TH YEAR TECHNOLOGY LINE

The number of sub-alternative is increased to six:
- Mechanical engineering
- Construction
- Building
- Electro-power
- Telecommunications
- Chemistry

Total Number of Hours per Week in the *Gymnasieskola*
year 1-3 (4) (in different subjects)*

Subject	OPTIONS						
	Lib.Arts/Soc.Sci.		Economics		Natural Science	Technology	
	LA	SS	Econ/Lang.	Other		1-3	4
Swedish	10*	10	9	9	9	8	
Modern languages	30[a]	25	30	21	18	12	
General linguistics	3[f]						
History	8	8	4	4	6	4	
Religion	3	3	2	2	2	2	
Philosophy	2	2			2		
Psychology	2[a]	2	2	2	1		2[c]
Civics	10.5[a]	10.5	8.5	8.5	5	5	
Mathematics	5	11	5	11	15	15	
Natural sciences	7	9	3	3			
Law			2[b]				
Business economy				2			
Other economic subjects				7[d]			
Physics					10.5	10.5	
Chemistry					7	6.5	
Biology					5		
Technology						11	
Other technological subjects						11.5[e]	30[e]
Business economy			10	13			3
Typewriting			4	3			
Shorthand			6				
History of art and music	2	2			2		
Music or art	2	2			2		
Physical education	8	8	7	7	8	7	
Free disposal	3.5	3.5	3.5	3.5	3.5	3.5	
	96	96	96	96	96	96	35

a. The number of hours is reduced in the classical and semi-classical variant, where Latin is read for 14 and Greek for eight hours. General linguistics is then omitted.

b. Can be exchanged for practical secretarial work

c. Ergonomics

d. Accounting, distribution or administration

e. Different timetables for the mechanical engineering, building, electro-engineering and chemistry alternatives

f. This subject is not read in the classical or semi-classical variant

*Explanatory note: A student in the liberal arts line may have four hours of Swedish per week during his first year and three hours of Swedish per week during each of his last two years, thereby giving him a total of ten hours.

The *fackskola* (continuation school) is of two-year duration and has three lines: economic line, social line, and technical line. Its purpose is to teach students to put theoretical education provided by school into practice. The last line mentioned leads into occupational life while the first two create a basis for further education, above all for nursing and service professions but also for some teaching professions. A student may also enter the second year of the *gymnasiet* after completing the continuation school.

3. Vocational/Technical. Students following the *yrkesskola* (vocational school) lines are given a broader education than previously. More definite decisions about their course of studies can be taken by students at a later stage. It also means they will be given a more rounded education, making it easier for them to adjust to changes in the labor market. Swedish labor market orientation and gymnastics are obligatory in all lines. Students also have to choose at least one of several optional subjects of a general character--English, German, French civics, psychology, mathematics, consumer education, etc. The general subjects for the lines within vocational school follow the same syllabus as the extra lines in the continuation school.

4. The *Folkhögskola* and Adult Education. In the last decade, almost every third adult has participated in some form of adult education. Many evening courses are held in the upper secondary schools. Among these are study groups sponsored by the Worker's Education Association (ABF) and also the White Collar Worker's Association (TBV). The *Folkhögskola* (Folk high school) occupies a special role in Swedish education. Historically, this school provided a way to educate an agricultural-oriented society. Today the age of the "pupils" ranges from 18 through the 40s. Young adults wishing to take a couple of years to drop into the educational stream, to upgrade both themselves and their job opportunities can do so at these schools.

There are 105 Folk high schools, all partially supported by the state. They are boarding schools with a high flexibility in their curriculum, capable of introducing new courses quickly and adjusting to demands. Today they are not in the formal school system, but are a part of the educational stream. According to Mr. Erland Kruckenberg, the Upper Secondary School Inspector: "The qualifications of a person from a Folk high school may be the same as a *Gymnasiet* in the field he studies."

IV. HIGHER EDUCATION

A. Universities and University-Level Colleges

1. Entrance Requirements. A *studentexamen* (*gymnasium* leaving examination) or school leaving certificate from a three-year line of the *gymnasieskola* or its equivalent is required for admission to the fields of study that are open. These "free faculties" include law, theology, social sciences including economics, humanities, and natural sciences including mathematics. On the 5-1 grading scale (5 is high) used at upper secondary schools, a minimum of 2.3 is required for university admission. For admission to many subjects within the free faculties appropriate secondary school preparation is required. Enrollment is usually limited in subjects involving laboratory work.

Secondary school certificate and special entrance requirements must be met for admission to the closed (blockaded) faculties which have limited enrollment. Medicine, dentistry, pharmacy, technology including engineering, agriculture, forestry, and veterinary medicine are among the blocked faculties.

Persons who are age 25 or older and who have at least five years of professional experience may register for certain subjects without meeting the secondary school leaving certificate requirement provided they have adequate preparation for those studies.

2. Swedish Universities

a) *Göteborgs Universitet* (Gothenburg University), Göteborg. Faculties of Medicine, Humanities, Social Sciences, Mathematics and Natural Sciences, Dentistry, (Branch at Karlstad).

b) *Lunds Universitet* (University of Lund), Lund. Faculties of Law, Theology, Medicine, Humanities, Social Sciences, Mathematics and Natural Sciences, Dentistry, Technology, (Branch at Växjö).

c) *Stockholms Universitet* (University of Stockholm), Stockholm. Faculties of Law, Humanities, Social Sciences, Mathematics and Natural Sciences, Institute for English-Speaking Students.

d) *Högskolan i Linköping* (University of Linköping). Faculties of Medicine, Philosophy, and Technology.

e) *Umeå Universitet* (Umeå University), Umeå. Faculties of Medicine, Dentistry, Humanities, Social Sciences, Mathematics and Natural Sciences, Extension Center at Luleå.

f) *Uppsala Universitet* (Uppsala University), Uppsala. Faculties of Theology, Law, Medicine, Pharmacy, Humanities, Social Sciences, Natural Sciences, (Branch at Örebro), Extension Center at Östersund. Note: Pharmacy faculty of Uppsala University has been transferred from Stockholm to Uppsala.

3. Technical Universities

a) *Chalmers Tekniska Högskola* (Chalmers Institute of Technology), Göteborg. Departments of Physics, Mechanical Engineering (including Shipbuilding), Electrical Engineering, Civil Engineering, Chemical Engineering (including Nuclear Chemistry), Architecture (including Town Planning), Textile Research Institute, Food Conservation Research Institute, Silicate Research Institute.

b) *Tekniska Högskolan* (The Institute of Technology), Stockholm. Departments of Physics, Mechanical Engineering, Aeronautics and Naval Architecture, Electrical Engineering, Civil Engineering, Chemical Engineering, Mining and Metallurgy, Architecture, and Surveying.

c) *Högskolan i Luleå* (Luleå University of Technology). Departments of Mechanical Engineering, Mining.

d) Faculty of Technology at the University of Lund. Departments of Physics, Mechanical Engineering, Electrical Engineering, Civil Engineering, Chemical Engineering, and Architecture.

e) Faculty of Technology at the University of Linköping. Departments of Mechanical Engineering, Physics and Electronics, and Industrial Engineering.

f) Faculty of Mathematics and Natural Sciences at Uppsala University. Department of Physics.

4. Professional Institutes

a) *Handelshögskolan i Göteborg* (Gothenburg School of Economics and Business Administration), Göteborg (since 1970: absorbed by University of Gothenburg). Economics, Business Administration.

b) *Handelshögskolan i Stockholm* (Stockholm School of Economics), Stockholm Departments of Economics, Business Administration, Economic Geography, Law, Social and Economic Psychology, Statistics and Economics, Data Processing, Economic Research Institute.

c) *Karolinska Institutet* (The Caroline Institute), Stockholm. Faculties of Medicine, Dentistry.

d) *Lantbrukshögskolan* (The Agriculture College of Sweden), Uppsala. Agriculture.

e) *Skogshögskolan* (The College of Forestry), Stockholm. Forestry.

f) *Veterinarhögskolan* (The Veterinary College of Sweden), Stockholm. Veterinary Medicine.

5. Teacher Training Institutions

a) *Lärarhögskolan* (School of Education). Enrollment is limited so admission is selective.

Entrance to programs that prepare teachers for higher *grundskola* (grades 7, 8, and 9) and *gymnasieskola* (grades 10, 11, and 12) requires a university degree.

Entrance to programs that prepare teachers for lower *grundskola* (grades 1, 2, and 3) which is a 2 1/2 year teacher training program and middle *grundskola* (grades 4, 5, and 6) a three-year program, both with theoretical and pedagogical courses, requires the secondary school leaving certificate from the three-year line. Students from a few two-year lines are also admitted.

These programs are offered at a number of locations.

The teaching certificate is awarded by the institution with grades in teaching skill of:

3	(highest)	Earned by 15% of the students
2		Earned by 25% of the students
1	(average)	Earned by 60% of the students

The one-year teacher training program is offered at the schools of education at Göteborg, Linköping (Folk high school teacher training also offered here), Malmö, Stockholm, Umeå, and Uppsala.

A one-year guidance and counseling program is offered at the schools of education at Stockholm, Malmö, and Umeå. The admission requirement is two-thirds of a university degree with a minimum of 40 points in pedagogy or psychology or sociology.

b) *Gymnastik-och Idrottshögskolan* (College of Physical Education). Physical education institutes offer two-year programs in training to teach physical education at *grundskola* (comprehensive school) and *gymnasieskola* (upper secondary school). Enrollment is limited so admission is selective from among graduates of upper secondary school.

B. Other Institutions

1. Specialized Institutions

a) *Bibliotekshögskolan* (College of Librarianship), Borås. The college has limited enrollment in its two-year certificate program so admission is selective. Applicants must be secondary school certificate holders with certain university studies or its equivalent.

b) *Socialhögskolan* (Graduate School of Social Work and Public Administration). Entrance to the *socialhögskolan* requires a secondary school leaving certificate from a three-year line of the *gymnasieskola* with a minimum average of 2.3.

The 3-3 1/2 year undergraduate degree programs train people for work in the Swedish social welfare system and public administration. Three lines: 1) social work, 2) administration, and 3) theoretical are offered, with the first two requiring practical work of twelve months or of seven months depending on prior practical work experience. Schools are located at Göteborg, Lund, Örebro, Östersund, Stockholm and Umeå.

c) Schools of journalism require a secondary school leaving certificate from a two-year line in the *gymnasieskola* for admission.

1) *Journalisthogskolan i Göteborg* (School of Journalism), Göteborg. Journalism, Radio, and Television.

2) *Journalisthögskolan i Stockholm* (School of Journalism), Stockholm. Journalism, Radio, and Television.

d) Institutes of Physiotherapy have a limited enrollment so admission is selective on a quota basis from applicants who have 1) completed comprehensive school, 2) completed a two-year line of *gymnasieskolan*, 3) completed a three-year line of *gymnasieskolan*.

1) *Institutet för arbetsterapeuter och sjukgymnaster i Göteborg* (The Institute of Physiotherapy of Göteborg), Göteborg.

2) *Sjukgymnastinstitutet i Stockholm* (The Institute of Physiotherapy of Stockholm), Stockholm.

3) *Sydsvenska Sjukgymnastinstitutet* (The Institute of Physiotherapy for Southern Sweden), Lund.

e) The State Institutes of Advanced Nursing Education offer advanced training programs for registered nurses with certain professional experience.

1) *Statens institut för högre utbildning av sjuksköterskor* (The State Institute of Advanced Nursing Education), Göteborg.

2) *Statens institut för högre utbildning av sjuksköterskor* (The State Institute of Advanced Nursing Education), Malmö.

3) *Statens institut för högre utbildning av sjuksköterskor* (The State Institute of Advanced Nursing Education), Stockholm.

4) *Statens institut för högre utbildning av sjuksköterskor* (The State Institute of Advanced Nursing Education), Umeå.

2) Schools of Arts and Music. The formal requirement for admission to schools of arts is "documented artistic skill." In the case of art teachers, final marks from the comprehensive school plus good artistic skill are required.

The requirement for admission to the colleges of music is "musical skill," demonstrated by entrance examinations.

a) *Konsthögskolan* (The College of Arts), Stockholm. Painting, Sculpture, Graphic Art, Architecture.

b) *Valands Konstskolan* (The Valand College of Arts), Göteborg. Painting, Sculpture, Graphic Art.

c) *Konstfackskolan i Stockholm* (The State School of Arts, Crafts and Design), Stockholm, including the Art Teachers' Training College.

d) *Kungliga Musikaliska Akademien* (The Royal Academy of Music), Stockholm (ceased to exist in 1971 and replaced by *Musikhögskolan* (The State College of Music), Stockholm, Göteborg, Malmö) Music.

C. University Degrees. The *studieplan* (syllabus) for a specific subject includes sections on 1) *studiekurser* (study courses), and 2) *literatur lista* (reading list) of books required or recommended.

1. Arts and science degrees of the philosophy faculties: humanities, social sciences (a part of the humanities faculty until 1964), mathematics and natural science. Philosophy faculties have an educational point system; one point represents one week's normal studies; students normally earn twenty points per semester. The *Filosofie Kandidatexamen* (Candidate in Philosophy) degree requires 120 points.

	Years*
a) *Filosofie Kandidatexamen (fil.kand. or FK)* (Candidate in Philosophy): The basic degree of the philosophy faculties.	3
b) *Ekonoexamen* (degree in economics)	3
c) *Magister* in political science:	
Filosofisk-samhällsvetenskaplig examen	3 1/2-4
Juridisk-samhällsvetenskaplig examen	4
About equal emphasis on law and social science, particularly economics and statistics.	
Before 1969:	
d) *Filosofisk ämbetsexamen (fil.mag. or FM)* (*magister* in philosophy): Basic degree for future secondary school teachers. Replaced by *fil.kand.* degree. Degree program will exist through 1974 for those who had started under the old system.	3-4
**e) *Filosofie licentiatexamen (fil.lic. or FL)* (*licentiat* in philosophy): Qualifies holder for highest teaching post *(lektorat)* at secondary schools.	3-5 after *FK* or *FM*
**f) *Filosofie doktorsgrad (fil.dr. or FD)* (*doktor* in philosophy): Qualifies holder for university teaching post if degree grade sufficiently high.	Thesis after *FL*
Effective 1969:	
g) *Filosofie doktor (fil.dr. or FD)* (*doktor* in philosophy)	4 after *FK*

2. Theological Degrees.

a) *Teologie kandidatexamen (teol.kand. or TK)* (*kandidat* in theology): Qualification for entering the service of both church and school.	3-4
Before 1969:	
**b) *Teologie licentiatexamen (teol.lic. or TL)* (*licentiat* in theology)	3 after *TK*
**c) *Teologie doktorsgrad (teol.dr. or TD)* (*doktor* of theology)	Thesis
Effective 1969:	
d) *Teologie doktorsexamen (teol.dr. or TD)* (*doktor* of theology)	

3. Medical Degrees.

a) *Medicine kandidatexamen (med.kand. or MK)* (*kandidat* in medicine): Preclinical period of theoretical studies followed by preliminary medical examination.	2
Before 1969:	
**b) *Medicine licentiatexamen (med.lic. or ML)* (*licentiat* in medicine): Qualification for practicing medicine.	4 1/2 after *MK*

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*The academic year is divided into two semesters: Autumn (September 1 - January 19) and spring (January 20 - June 3)

**Introduced July 1, 1969, was a new Doctor's degree which will normally be taken four years after the first degree or first professional title. The former *Licentiate* degree and *Doktor's* degree were kept in effect until July 1, 1971, for those who had begun those degree programs.

	Years
*c) *Medicine doktorsgrad (med.dr. or MD)* (*doktor* in medicine)	Thesis after *ML*
Effective 1969:	
d) *Medicine doktorsgrad (med.dr. or MD)* (*doktor* of medicine)	
4. Law Degrees.	
a) *Juris kandidatexamen (jur.kand. or JK)* (*kandidat* in law): Primarily for prospective judges, officials in government agencies, higher district attorneys and lawyers.	4-4 1/2
b) *Juridisk-samhällsvetenskaplig examen (jur.pol.mag. or JPM)* (*magister* in law): About equal emphasis on law and on social science, particularly economics and statistics.	4
Before 1969:	
*c) *Juris licentiatexamen (jur.lic. or JL)* (*licentiat* in law)	3 after *JK*
*d) *Juris doktorsgrad (jur.dr. or JD)* (*doktor* of law): Taken by those aiming for an academic career.	Thesis after *JL*
Effective 1969:	
e) *Juridisk-doktorsexamen (jur.dr. or JD)* (*doktor* of law)	

D. Professional Titles. The following are first professional titles which are at least the equivalent of first university degrees and which may be followed by a *Doktor's* degree:

	Years
1. *Agronom (Agr.)* (Agronomist)	5
2. *Tandläkare* (Dentist)	5
3. Engineer:	
*Arkitekt*** (Architect)	4
*Civilingenjör*** (Civil engineer)	4
*Bergsingenjör*** (Mining engineer)	4
4. *Civiljägmästare* (Forester)	4
5. *Apotekare* (Pharmacist)	4
6. *Veterinär* (Veterinarian)	5 1/2

V. GRADING CHARACTERISTICS

As in the United States and Canada, Swedish educators consider student evaluation to be an enigma. Reformers are continually searching for a grading system that will provide interpretations of academic progress within a student centered framework. Modifications have and will continue to occur as Sweden furthers educational experimentation. The comparative analyst must therefore continually keep abreast of future adjustments.

A. Secondary Education. Prior to 1970 the grading system in secondary schools took the form of letter grades based on scales that were said to be absolute but in fact were based on the normal distribution. Those examining early transcripts should note this practice. A grade of "B" was considered a minimum passing grade with marks of "BT" and "C" reflecting relative level of failure. In this system the highest passing mark was considered an "A" (pass with great distinction) followed by marks of an "AB," and "Ba."

With the amalgamation of the *gymnasium* into the comprehensive secondary school a new grading system was introduced. This new scale of grades is based on the normal distribution as shown below:

Grade	1 (low)	2	3 (average)	4	5 (high)
Percent	7	24	38	24	7

Theoretically this scale is a relativistic interpretation reflecting a student's progress in comparison with all students enrolled in the same subject at the same level throughout the country. A grade of 3 approximates the mean with higher or lower marks indicating normative deviations.

These marking practices are manifested within an educational system intensely determined to provide an equality of educational opportunity. Uniform curricular offerings from school to school and the utilization of standardized examinations in several subject areas are intended to provide the basis for the normalization of grades. By keeping records on the distribution of student performance on internal class criteria and comparing these marks with standardized test scores the teacher can denote class performance level and assign grades accordingly. For example, if in a given class 50 percent of the pupils score above the deviation mean on standardized tests, then 50 percent of the above are eligible for grades of higher than a 3.

The above practice is, of course, not explicitly followed. Standardized tests are not available in a number of subjects in the integrated upper secondary school, thus relative class standing must be inferred from scores on tests in related subjects. In the final analysis evaluation must be conducted with respect to the teacher's appraisal of the student's progress. The final grade in a course is solely the teacher's responsibility.

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*Ibid.

***Teknisk Doktor (Tekn.d. or TD)* (*Doktor* of Technology) is the name of the degree following each of these titles.

Very rarely is a student given a 0, or a failing mark. The question of whether a student should move up to a higher class is decided on an individual basis. Some alternatives to repeating a year of study are reduction of course load or change in academic line. Grades are distributed twice a year at the end of each term. An overall grade average can be computed by means of a quality point index.

Sweden is continuing to experiment with psychometrics. In addition to standardized examinations, the National Board of Education also prepares diagnostic tests to determine profiles of student progress. Psychological tests are also being utilized to measure noncognitive functions.

Matriculation to higher education is based on evaluation of the student's performance in the secondary school. Prior to 1968, the *studentexamen*, a standardized achievement test for college entry, was utilized for admission purposes. Currently, a 2.3 academic average computed from the student's leaving certificate is established as a minimal criterion for university entrance. In subject areas with blocked line entrance, requirements are much higher. In medicine for example a 4.7 average was necessary for admission in 1973. Certain university subjects have special requirements for admission. To read mathematics for example, a student must have read that subject for three years in an integrated upper secondary school. Because Sweden does not utilize subjective data for admission purposes, applicants to blocked lines are under considerable pressure to achieve high marks.

B. Higher Education. The Swedish university student enrolls for one study course during a given term. The study course selected covers material with respect to a subject area. The length of a study course is commonly of one semester duration and carries 20 points. There are two semester length courses that carry 40 points and half semester courses worth 10 points. Many students take longer than the allotted time to complete a study course.

A study course is comprised of several specific courses. Individual course teachers evaluate students on the basis of performance on written examinations given at the end of the term. Class discussion and written papers may also be considered in determining marks. For each study course one teacher is responsible for determining a final mark. Only this latter mark shows on the diploma issued when a student graduates. Diploma marks for a study course are recorded as either pass or pass with distinction. No quality point index is followed. Failing grades are not recorded. If a student does not achieve a pass grade, he may retake the written examination over again until he succeeds.

If students do not achieve a minimum of 40 points during three semesters of full-time study, their progress is subject to review by an educational committee. Students who are not allowed to continue for a degree may still be permitted to retake examinations in each course not passed up to four times.

In recent years some university departments have begun to use diagnostic tests for the placement of students in a curriculum. A student with a poor background or a poor secondary record may be discouraged from pursuing a study line.

Grades are recorded in the student's study book at the end of completion of the subject. A student transferring universities or pursuing advanced study may request a certificate from his academic department describing the curriculum of subjects taken and points earned. Upon completion of the degree the graduate is awarded a diploma.

Students in graduate programs are required to engage in a minimum of four years of full-time academic work. Upon successful completion of requirements a doctorate is awarded. The doctorate normally requires about two years of course work and the rest for research and the production of a thesis which must be publicly defended. There is now no intermediate degree offered which could be compared with a U.S. Masters with the exception of a psychologist degree.

C. Teacher Training Schools. Students in teacher training schools are graded on a similar basis to those in universities although a grade of 3 is high and a grade of 1 is low. There is individual evaluation of the student's practice teaching. Students performing poorly in this latter assignment are not permitted to join the teaching ranks.

D. Other Educational Institutions. Folk high schools, technical schools, and adult education programs vary in their methods of student evaluation. No grading pattern is distinguishable for each form. Each institution will, however, issue leaving certificates describing the content of the curricula. Technical school students enrolled in programs from which matriculation to a higher level of education is possible may possess documents of an evaluative nature.

VI. SWEDEN RECOMMENDATIONS

A. Secondary School

1. Students who have completed two-year social, economic, or technical* lines from a *gymnasieskola* (integrated upper secondary school) with a minimum grade average of 2.3 should be considered for freshman admission without advanced standing.

2. Students who have completed a three-year line from a *gymnasieskola* (integrated upper secondary school) at a level that qualifies for Swedish university admission (2.3) may generally be awarded one year of advanced standing with emphasis placed according to the particular line of study.

Students who have completed the fourth year of the technical line should be considered for the award of an additional year of advanced standing on a course by course basis when admitted to an engineering degree program.

3. *Folkhögskolor* (Folk high schools) are diverse in curricula offerings and level of instruction. Therefore, applicants to North American universities must be evaluated individually with consideration given to the student's academic preparation, maturity, and work experience.

B. University Transfer

1. Students who are admitted from a Swedish university may receive transfer credits in addition to those awarded for secondary school work. For each 40 points acquired at the university the equivalent of one year of advanced standing may be awarded.

2. Students who have a *Filosofie Kandidat (FK)*, or a *Filosofie Magister (FPM)*, or an *Ekonomexamen* should be considered eligible for admission to graduate study.

3. Students holding a *Filosofie Licantiat (FL)* should be considered for doctoral level studies.

4. Students holding a *Filosofie Doktor (FD)* should be considered for postdoctoral level studies.

C. Teacher Training Institutions

1. Students completing one year of pedagogy following completion of a degree should have this additional teacher training evaluated on a course by course basis for admission into a graduate program.

2. Students who complete 2 1/2 or three years of teacher training should have their work evaluated for advanced credit on a course for course basis.

VII. GLOSSARY OF SWEDISH EDUCATIONAL TERMS

Agronom--Agronomist

Allmänbildande--Providing general education

Anmärkningar--Teacher's comments

Apotekare--Pharmacist

Arkitekt--Architect

Barnstugan--Preparatory school

Bergsingenjor--Mining engineer

Betygenheter--Grade points

Betygsgrader--Report card grades
  berömlig--excellent, with distinction (A; 3)
  med utmärkt beröm godkänd--high pass, with distinction (a; 2.5)
  med beröm godkänd--high pass (AB; 2)
  icke utan beröm godkänd--pass, with distinction (Ba; 1.5)
  godkänd--pass (B; 1)

Bevis--Certificate, transcript

Civilingenjör--Civil engineer

Civiljägmästare--Forester

Daghem--Day nursery

Fackskola--Continuation school

Fakulteten--Faculties

Folkhögskola--Folk high school

Föreläsningar--Lectures

Grundskola--Comprehensive basic school

Gymnasieskola--Integrated upper secondary school

Gymnasium--Three or four year upper secondary school that prepared for higher education prior to 1971; now part of *gymnasieskolan*

Högskolan--University-level college

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*Distinguish from *yrkesutbildning* (vocational) as shown on the Chart of the Swedish Educational System.

Högstadiet--Senior level in basic comprehensive school

Inskriven--Registered at university

Lågstadiet--Junior level in basic comprehensive school

Lärare--Male elementary teacher

Lärarinna--Female elementary teacher

Lärarutbildning--Teacher training

Läroamne--Subject

Läroverk--Secondary academic school combining the *realskola* and the *gymnasium*; being phased out

Lekskola--Play school

Lektionsundervisning--Classwork

Lektor--Teacher (often, head teacher) in a *gymnasium*

Literatur lista--Reading list

Mellanstadiet--Middle level in basic comprehensive school

Realskola--Lower secondary school, replaced by the comprehensive school

Rektor--University president

Riksdag--Legislature

Skola--School

Skolväsendet--The general educational system

Skolöverstyrelsen (SO)--National Board of Education

Studentexamen--The *gymnasium*-leaving examination that until 1968 qualified for university entrance

Studiekurser--Study courses

Studieplan--Syllabus

Tandläkare--Dentist

Termin--One term in an academic year

Terminsbetyg--Term report

Universitet--University

Universitet och högskolor--Institutions of higher education

Universitetskanslersämbetet (UKÄ)--Office of the Chancellor of the Swedish Universities

Veterinär--Veterinarian

Yrkesskola--Vocational school

Yrkesutbildning--Vocational lines

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APPENDIX A. WORKSHOP STAFF AND PARTICIPANTS

WORKSHOP STAFF:

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APPENDIX B. COUNTRY VISITS

Denmark

(C. Allen, S. Horness, L. Lemon, S. Malin, D. Stansbury)

First Day:
Royal Danish School of Educational Studies
United States Embassy
Ministry of Education

Second Day:
The Technical University of Denmark at Lundtofte
Royal Veterinary and Agricultural University

Third Day:
University of Copenhagen
Copenhagen Dental College

Fourth Day:
Norre Gymnasium
Roskilde University Center

Finland

(A. McEwen, F. Molek, E. Poysa, M. Simpson, J. Wulk)
(D. Burns participated in some activities)

First Day:
Central Board of Education

Second Day:
Helsingin Yhteisnormaalilyseo (Teacher Training School)
Tapiolan Yhteiskoulu (Academic Secondary School)
Helsinki University of Technology

Third Day:
Ministry of Education
University of Helsinki
National Board of Vocational Education

Fourth Day:
Group I. University of Jyväskylä
Institute for Educational Research at Jyväskylä
Student Village

Group II. *Helsingin Normaalilyseo* (Helsinki Teacher Training College)
Ministry of Labor

Fifth Day:
Ministry of Education

Iceland

(S. Horness, L. Lemon, C. Sjogren)

Only Day:
Ministry of Education, Department of Instruction
University of Iceland,
Ministry of Education, Department of Educational Research
Ministry of Education, Department of Culture
Secondary School at Hamrahlid
United States Embassy meeting with U.S. Ambassador to Iceland
United States Information Service library (reception for alumni of the Universities of Arizona, California, and Michigan)

Norway

Group I: R. Alm, D. Dyresen
Group II: C. Nelson, C. Underwood, G. Krivy
(D. Burns participated on some activities)

First Day:

General introduction of the system of education in Norway. At the Ministry of Church and Education (Akersgaten 42--Room 1060)

Group I. *Yrkesopplaeringsrådet* (The State Council for Vocational Training), Sommerrogaten 19

Group II. *Gymnasrådet* (The State Council for Secondary Education), Skovveien 49

Group I. *Handelsakademiet* (College of Business Administration), Kronprinsensgt

Group II. The Central Committee for Regional Colleges, (Ministry of Church and Education)

Bedriftsøkonomisk Institutt (Oslo Institute of Business Administration), Frysjaveien 33c

Second Day:

General introduction to the universities of Norway at the University of Oslo. Blindern

Visits to some of the faculties of the University

The State Loan Fund for Education (*Økern*)

Departure by train in the evening for Trondheim and Bergen

Third Day:

Group I. Trondheim:

Norges Tekniske Høyskole (Norwegian Institute of Technology)

Norges Lærerhøyskole (State College for Teachers)

Group II. Bergen:

Norges Handelshøyskole (The State College for Business Administration and Economics). Representatives for the commercial gymnasium of Bergen were present

Visit to a gymnasium following the traditional system of secondary education in Bergen (*Tanks skole*)

The Bergen Technical College

Fourth Day:

Group I. Trondheim:

Regional superintendent of elementary and secondary schools of education (*Fylkesskolesjefen*) in Trondheim

Trondheim Økonomiske Gymnas (The Commercial Gymnasium of Trondheim)

Ringve Reformgymnas (The reform-gymnasium of Ringve)

Group II. Stavanger:

Stavanger Katedralskole (a reform-gymnasium)

The Regional College of Stavanger (where representatives for the Technical School of Stavanger were present)

Norway (continued)

Fifth Day:

United States Embassy, Oslo
Presentation of institutions:
--The Social Security Office for Students Abroad
--Association of Norwegian Students Abroad (ANSA)
--The Norwegian-American Foundation
--The U.S. Cultural Affairs Office

Discussions with ANSA officials

Visit to the Canadian Embassy of Oslo

Sweden

Group I: N. Granewall, A. Morden, J. Williams
Group II: D. Kelson, F. Swenson
(D. Burns and C. Sjogren participated in some activities)

First Day:

Remvig Farm, Eslöv

Second Day:

Group I. *Katedral Skola*, Lund
Lund University, Lund

Group II. *Gymnastik och Idrottshögskolan*, Örebro
Risebergska Skolan, Örebro
Örebro University Branch of Uppsala University, Örebro

Third Day:

Fulbright Commission, Stockholm
Lärarhögskolan: Stockholm, Stockholm
St. Jacobi Gymnasium, Stockholm

Fourth Day:

Skolöverstyrelsen (The National Board of Education), Stockholm
Svenska Institutet (The Swedish Institute for Cultural Relations with Foreign Countries), Stockholm
Sverige-Amerika Stiftelsen (The Sweden-America Foundation), Stockholm
Universitetskanslersämbetet (The Office of the Chancellor of the Swedish Universities), Stockholm

Fifth Day:

Katedral Skola, Uppsala
Uppsala University, Uppsala
Valsätraskolan, Uppsala

Group I. *Vik Folk Högskola*, Uppsala

Group II. Sweden Immigration Service in Uppsala
Uppsala University Library

Sixth Day:

Group I. Canadian Embassy, Stockholm

Group II. American Field Service, Stockholm
Västerhaninge Folk Högskola, Stockholm

Internationalization Committee of Universitetskanslersämbetet, Stockholm

APPENDIX C. COUNTRY DAYS AT [illegible]

Denmark Day at [illegible]
(September [illegible])

Introduction	[illegible]
General Background	[illegible]
Pre-University Education	[illegible]
Postsecondary Education	[illegible]
Grading System	[illegible]
General Comments on Danish Education	[illegible]
General Discussion	[illegible]
Chairperson of Discussion on Recommendations	[illegible]

Finland Day at [illegible]
(September [illegible])

Introduction	[illegible]
Background	[illegible]
Secondary School System Today	[illegible]
Vocational Education	[illegible]
Higher Education	[illegible]
Teacher Training	[illegible]
Comprehensive Reforms	[illegible]
Comments	[illegible]
Chairperson of Discussion on Recommendations	[illegible]

Iceland Day at [illegible]
(September [illegible])

Introduction (general and educational background)	[illegible]
Pre-University Education	[illegible]
Postsecondary Education	[illegible]
General Comments on Icelandic Education	[illegible]
General Discussion	[illegible]
Chairperson of Discussion on Recommendations	[illegible]

Norway Days at Bergsjö

(September 26 & 27, 1973)

Introduction	C. Nelson
Background	D. Dyresen
Role of the Ministry of Church and Education	J. Bjørge
System of Education	D. Dyresen
Gymnasium	G. Krivy
Technical and Vocational Schools	R. Alm
Regional Colleges	C. Underwood
Folk University	D. Dyresen
Universities	C. Nelson
Special Features for Students Studying Abroad:	
ANSA	P. Johannessen
State Loan Fund for Education	J. Wold
The Norway-America Foundation	R. Galtung
Social Security Office for Students Abroad	F. Nomme
Chairperson of Discussion on Recommendations	C. Sjogren

Sweden Day at Bergsjö

(September 24, 1973)

Introduction	F. Swenson
Historical Background	N. Granewall
General Comments on Swedish Educational System	A. Ehn
Swedish Educational System Today	A. Morden
Higher Education	D. Kelson
Grading System and Measurement Problems	J. Williams
Recent and Anticipated Reforms:	
Integrated *Gymnasiet*	A. Ehn
U-68 and University	I. Rathsman
Discussion	F. Swenson
General Discussion	(Team)
Chairperson of Discussion on Recommendations	C. Sjogren

APPENDIX D. SCANDINAVIAN STUDENTS ENROLLED IN U.S. INSTITUTIONS, 1961-72*

Years	Total Number of Scandinavian Students Enrolled in the U.S.	Undergraduate Students					Graduate, Professional and Special Students					Totals**				
		Denmark	Finland	Iceland	Norway	Sweden	Denmark	Finland	Iceland	Norway	Sweden	Denmark	Finland	Iceland	Norway	Sweden
1961-62	875	49	48	20	326	90	79	71	19	44	111	131	125	39	373	207
1962-63	967	77	62	26	266	108	88	79	21	137	96	165	143	47	407	205
1963-64	1,082	66	64	16	247	97	93	98	28	202	133	181	166	45	454	236
1964-65	1,110	60	68	19	234	113	108	112	33	180	158	174	185	53	418	280
1965-66	1,194	75	59	20	282	137	98	120	36	195	179	182	149	56	482	325
1966-67	1,522	99	96	19	386	161	140	117	31	271	190	241	217	50	660	354
1967-68	1,659	87	88	27	383	169	155	142	39	306	233	248	236	66	703	406
1968-69	1,877	103	109	33	354	183	273	150	45	339	249	386	268	79	700	444
1969-70	1,768	94	130	41	329	210	177	142	31	327	248	281	275	73	668	471
1970-71	1,801	94	133	39	305	210	186	173	42	329	264	289	311	81	637	483
1971-72	1,525	75	109	33	289	187	149	132	39	248	202	238	256	74	544	413

*All figures are from the publications, *Open Doors* (1962 through 1972), published by the Institute of International Education, New York City. This data was initially placed into chart form by workshop participant, Simon Horness, University of Arizona.

**Total figures include students who did not specify educational level.

Copies of previous workshop reports in print are available at the NAFSA Central Office, 1860 19th Street, N.W., Washington, D.C. 20009.

1966 *The Evaluation of Asian Educational Credentials: A Workshop Report* (India, Japan, Philippines, Taiwan). Editor, Lee Wilcox.

1968 *Report of the Training Workshop on the Evaluation of Asian Educational Credentials* (Vietnam, Laos, Cambodia, Thailand, Indonesia, Korea). Editor, Richard Dremuk.

1969 *The Admission and Placement of Students from Latin America: A Workshop Report* (Brazil, Central America, Colombia, Venezuela). Editor, Lee Wilcox.

1970 *The Admission and Placement of Students from the Pacific--Asia Area* (Australia, Ceylon, Hong Kong, India, Malaysia, New Zealand, Pakistan, Singapore, Okinawa and the Pacific Islands). Editor, Sanford C. Jameson.

1971 *The Admission and Academic Placement of Students from Selected Countries of Latin America: A Workshop Report* (Argentina, Chile, Ecuador, Peru). Editor, Joel B. Slocum.

1974 *The German-American Conference on Educational Exchange: A Conference Report* (Germany). Editor, Philip P. Byers.

1974 *The Admission and Academic Placement of Students from the Caribbean: A Workshop Report* (British Patterned Education, Cuba, the Dominican Republic, Dutch Patterned Education, the French West Indies, Haiti, Puerto Rico, the U.S. Virgin Islands). Editor, Cynthia Fish.

1974 *The Admission and Academic Placement of Students from Selected Sub-Saharan African Countries: A Workshop Report* (Most countries of East, Central and West Africa). Editor, Cynthia Wise.

Several of the reports listed above have been entered into the Educational Resource Information Center (ERIC) system of the U.S. Office of Education, Washington, D.C., and are available on microfische. It is anticipated that all of the reports will be entered into the ERIC system by late 1974.